



ThinkCentre Hardware Maintenance Manual



ThinkThink**ThinkCentre**Think

Machine Types: 0401, 0421, 0994, 1165, 1184, 1186, and 2565



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Machine Types: 0401, 0421, 0994, 1165, 1184, 1186, and 2565

Note: Before using this information and the product it supports, be sure to read the information in Appendix A “Notices” on page 183.

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Chapter 1. About this manual

This manual contains service and reference information for ThinkCentre® computers listed on the cover. It is intended only for trained servicers who are familiar with Lenovo® computer products.

Before servicing a Lenovo product, be sure to read the Safety Information in Chapter 2 "Safety information" on page 3.

The Symptom-to-FRU Index and Additional Service Information chapters are not specific to any machine type and are applicable to all ThinkCentre computers.

This manual includes a complete FRU part number listing for each machine type and model listed on the cover. If you have Internet access, FRU part numbers are also available at:
<http://www.lenovo.com/support>

Important Safety Information

Be sure to read all caution and danger statements in this book before performing any of the instructions.

Veillez lire toutes les consignes de type DANGER et ATTENTION du présent document avant d'exécuter les instructions.

Lesen Sie unbedingt alle Hinweise vom Typ "ACHTUNG" oder "VORSICHT" in dieser Dokumentation, bevor Sie irgendwelche Vorgänge durchführen

Leggere le istruzioni introdotte da ATTENZIONE e PERICOLO presenti nel manuale prima di eseguire una qualsiasi delle istruzioni

Certifique-se de ler todas as instruções de cuidado e perigo neste manual antes de executar qualquer uma das instruções

Es importante que lea todas las declaraciones de precaución y de peligro de este manual antes de seguir las instrucciones.

تأكد من قراءة كل التحذيرات الموجودة في هذا الكتاب قبل اتباع هذه التعليمات .

执行任何说明之前，请确保已阅读本书中的所有警告和危险声明。

執行任何指示前，請確實閱讀本書中的所有警告及危險聲明。

ודאו שקראתם את כל הודעות האזהרה והסכנה במסמך זה לפני שתבצעו פעולה כלשהי.

본 사용 설명서에 기재된 내용을 실행하기 전에 모든 주의사항 및 위험사항을 숙지하십시오.

Important information about replacing RoHS compliant FRUs

RoHS, The Restriction of Hazardous Substances in Electrical and Electronic Equipment Directive (2002/95/EC) is a European Union legal requirement affecting the global electronics industry. RoHS requirements must be implemented on Lenovo products placed on the market and sold in the European Union after June 2006. Products on the market before June 2006 are not required to have RoHS compliant parts. If the parts are not compliant originally, replacement parts can also

be noncompliant, but in all cases, if the parts are compliant, the replacement parts must also be compliant.

Note: RoHS and non-RoHS FRU part numbers with the same fit and function are identified with unique FRU part numbers.

Lenovo plans to transition to RoHS compliance well before the implementation date and expects its suppliers to be ready to support Lenovo's requirements and schedule in the EU. Products sold in 2005 will contain some RoHS compliant FRUs. The following statement pertains to these products and any product Lenovo produces containing RoHS compliant parts.

RoHS compliant ThinkCentre parts have unique FRU part numbers. Before or after June 2006, failed RoHS compliant parts must always be replaced using RoHS compliant FRUs, so only the FRUs identified as compliant in the system Hardware Maintenance Manual or direct substitutions for those FRUs can be used.

Products marketed before June 2006		Products marketed after June 2006	
Current or original part	Replacement FRU	Current or original part	Replacement FRU
Non-RoHS	Can be Non-RoHS	Must be RoHS	Must be RoHS
Non-RoHS	Can be RoHS		
Non-RoHS	Can sub to RoHS		
RoHS	Must be RoHS		

Note: A direct substitution is a part with a different FRU part number that is automatically shipped by the distribution center at the time of order.

Chapter 2. Safety information

This chapter contains the safety information that you need to be familiar with before servicing a computer.

General safety

Follow these rules to ensure general safety:

- Observe good housekeeping in the area of the machines during and after maintenance.
- When lifting any heavy object:
 1. Ensure you can stand safely without slipping.
 2. Distribute the weight of the object equally between your feet.
 3. Use a slow lifting force. Never move suddenly or twist when you attempt to lift.
 4. Lift by standing or by pushing up with your leg muscles; this action removes the strain from the muscles in your back. *Do not attempt to lift any objects that weigh more than 16 kg (35 lb) or objects that you think are too heavy for you.*
- Do not perform any action that causes hazards to the customer, or that makes the equipment unsafe.
- Before you start the machine, ensure that other service representatives and the customer's personnel are not in a hazardous position.
- Place removed covers and other parts in a safe place, away from all personnel, while you are servicing the machine.
- Keep your tool case away from walk areas so that other people will not trip over it.
- Do not wear loose clothing that can be trapped in the moving parts of a machine. Ensure that your sleeves are fastened or rolled up above your elbows. If your hair is long, fasten it.
- Insert the ends of your necktie or scarf inside clothing or fasten it with a nonconductive clip, approximately 8 centimeters (3 inches) from the end.
- Do not wear jewelry, chains, metal-frame eyeglasses, or metal fasteners for your clothing.
Remember: Metal objects are good electrical conductors.
- Wear safety glasses when you are: hammering, drilling, soldering, cutting wire, attaching springs, using solvents, or working in any other conditions that might be hazardous to your eyes.
- After service, reinstall all safety shields, guards, labels, and ground wires. Replace any safety device that is worn or defective.
- Reinstall all covers correctly before returning the machine to the customer.

Electrical safety



CAUTION:

Electrical current from power, telephone, and communication cables can be hazardous. To avoid personal injury or equipment damage, disconnect the attached power cords, telecommunication systems, networks, and modems before you open the computer covers, unless instructed otherwise in the installation and configuration procedures.

Observe the following rules when working on electrical equipment.

Important: Use only approved tools and test equipment. Some hand tools have handles covered with a soft material that does not insulate you when working with live electrical currents. Many customers have, near their equipment, rubber floor mats that contain small conductive fibers to decrease electrostatic discharges. Do not use this type of mat to protect yourself from electrical shock.

- Find the room emergency power-off (EPO) switch, disconnecting switch, or electrical outlet. If an electrical accident occurs, you can then operate the switch or unplug the power cord quickly.
- Do not work alone under hazardous conditions or near equipment that has hazardous voltages.
- Disconnect all power before:
 - Performing a mechanical inspection
 - Working near power supplies
 - Removing or installing Field Replaceable Units (FRUs)
- Before you start to work on the machine, unplug the power cord. If you cannot unplug it, ask the customer to power-off the wall box that supplies power to the machine and to lock the wall box in the off position.
- If you need to work on a machine that has exposed electrical circuits, observe the following precautions:
 - Ensure that another person, familiar with the power-off controls, is near you.
Remember: Another person must be there to switch off the power, if necessary.
 - Use only one hand when working with powered-on electrical equipment; keep the other hand in your pocket or behind your back.
Remember: There must be a complete circuit to cause electrical shock. By observing the above rule, you may prevent a current from passing through your body.
 - When using a tester, set the controls correctly and use the approved probe leads and accessories for that tester.
 - Stand on suitable rubber mats (obtained locally, if necessary) to insulate you from grounds such as metal floor strips and machine frames.

Observe the special safety precautions when you work with very high voltages; these instructions are in the safety sections of maintenance information. Use extreme care when measuring high voltages.

- Regularly inspect and maintain your electrical hand tools for safe operational condition.
- Do not use worn or broken tools and testers.
- *Never assume* that power has been disconnected from a circuit. First, *check* that it has been powered-off.
- Always look carefully for possible hazards in your work area. Examples of these hazards are moist floors, nongrounded power extension cables, power surges, and missing safety grounds.
- Do not touch live electrical circuits with the reflective surface of a plastic dental mirror. The surface is conductive; such touching can cause personal injury and machine damage.
- Do not service the following parts with the power on when they are removed from their normal operating places in a machine:
 - Power supply units
 - Pumps
 - Blowers and fans
 - Motor generatorsand similar units. (This practice ensures correct grounding of the units.)
- If an electrical accident occurs:
 - Use caution; do not become a victim yourself.
 - Switch off power.
 - Send another person to get medical aid.

Safety inspection guide

The intent of this inspection guide is to assist you in identifying potentially unsafe conditions on these products. Each machine, as it was designed and built, had required safety items installed to protect users and service personnel from injury. This guide addresses only those items. However, good judgment should be used to identify potential safety hazards due to attachment of features or options not covered by this inspection guide.

If any unsafe conditions are present, you must determine how serious the apparent hazard could be and whether you can continue without first correcting the problem.

Consider these conditions and the safety hazards they present:

- Electrical hazards, especially primary power (primary voltage on the frame can cause serious or fatal electrical shock).
- Explosive hazards, such as a damaged CRT face or bulging capacitor
- Mechanical hazards, such as loose or missing hardware

The guide consists of a series of steps presented in a checklist. Begin the checks with the power off, and the power cord disconnected.

Checklist:

1. Check exterior covers for damage (loose, broken, or sharp edges).
2. Power-off the computer. Disconnect the power cord.
3. Check the power cord for:
 - a. A third-wire ground connector in good condition. Use a meter to measure third-wire ground continuity for 0.1 ohm or less between the external ground pin and frame ground.
 - b. The power cord should be the appropriate type as specified in the parts listings.
 - c. Insulation must not be frayed or worn.
4. Remove the cover.
5. Check for any obvious alterations. Use good judgment as to the safety of any alterations.
6. Check inside the unit for any obvious unsafe conditions, such as metal filings, contamination, water or other liquids, or signs of fire or smoke damage.
7. Check for worn, frayed, or pinched cables.
8. Check that the power-supply cover fasteners (screws or rivets) have not been removed or tampered with.

Handling electrostatic discharge-sensitive devices

Any computer part containing transistors or integrated circuits (ICs) should be considered sensitive to electrostatic discharge (ESD). ESD damage can occur when there is a difference in charge between objects. Protect against ESD damage by equalizing the charge so that the machine, the part, the work mat, and the person handling the part are all at the same charge.

Notes:

1. Use product-specific ESD procedures when they exceed the requirements noted here.
2. Make sure that the ESD protective devices you use have been certified (ISO 9000) as fully effective.

When handling ESD-sensitive parts:

- Keep the parts in protective packages until they are inserted into the product.
- Avoid contact with other people while handling the part.

- Wear a grounded wrist strap against your skin to eliminate static on your body.
- Prevent the part from touching your clothing. Most clothing is insulative and retains a charge even when you are wearing a wrist strap.
- Use the black side of a grounded work mat to provide a static-free work surface. The mat is especially useful when handling ESD-sensitive devices.
- Select a grounding system, such as those listed below, to provide protection that meets the specific service requirement.

Note: The use of a grounding system is desirable but not required to protect against ESD damage.

- Attach the ESD ground clip to any frame ground, ground braid, or green-wire ground.
- Use an ESD common ground or reference point when working on a double-insulated or battery-operated system. You can use coax or connector-outside shells on these systems.
- Use the round ground-prong of the ac plug on ac-operated computers.

Grounding requirements

Electrical grounding of the computer is required for operator safety and correct system function. Proper grounding of the electrical outlet can be verified by a certified electrician.

Safety notices (multi-lingual translations)

The caution and danger safety notices in this section are provided in the following languages:

- English
- Arabic
- Brazilian/Portuguese
- Chinese (simplified)
- Chinese (traditional)
- French
- German
- Hebrew
- Italian
- Korean
- Spanish



DANGER

Electrical current from power, telephone and communication cables is hazardous.

To avoid a shock hazard:

- **Do not connect or disconnect any cables or perform installation, maintenance, or reconfiguration of this product during an electrical storm.**
- **Connect all power cords to a properly wired and grounded electrical outlet.**
- **Connect to properly wired outlets any equipment that will be attached to this product.**

- When possible, use one hand only to connect or disconnect signal cables.
- Never turn on any equipment when there is evidence of fire, water, or structural damage.
- Disconnect the attached power cords, telecommunications systems, networks, and modems before you open the device covers, unless instructed otherwise in the installation and configuration procedures.
- Connect and disconnect cables as described in the following tables when installing, moving, or opening covers on this product or attached devices.

To Connect	To Disconnect
<ol style="list-style-type: none"> 1. Turn everything OFF. 2. First, attach all cables to devices. 3. Attach signal cables to connectors. 4. Attach power cords to outlet. 5. Turn device ON. 	<ol style="list-style-type: none"> 1. Turn everything OFF. 2. First, remove power cords from outlet. 3. Remove signal cables from connectors. 4. Remove all cables from devices.



CAUTION:

When replacing the lithium battery, use only Part Number 45C1566 or an equivalent type battery recommended by the manufacturer. If your system has a module containing a lithium battery, replace it only with the same module type made by the same manufacturer. The battery contains lithium and can explode if not properly used, handled, or disposed of. *Do not:*

- Throw or immerse into water
- Heat to more than 100°C (212°F)
- Repair or disassemble

Dispose of the battery as required by local ordinances or regulations.



CAUTION:

When laser products (such as CD-ROMs, DVD-ROM drives, fiber optic devices, or transmitters) are installed, note the following:

- Do not remove the covers. Removing the covers of the laser product could result in exposure to hazardous laser radiation. There are no serviceable parts inside the device.
- Use of controls or adjustments or performance of procedures other than those specified herein might result in hazardous radiation exposure.



DANGER

Some laser products contain an embedded Class 3A or Class 3B laser diode. Note the following:

Laser radiation when open. Do not stare into the beam, do not view directly with optical instruments, and avoid direct exposure to the beam.





≥18 kg (37 lbs)



≥32 kg (70.5 lbs)



≥55 kg (121.2 lbs)

CAUTION:

Use safe practices when lifting.



CAUTION:

The power control button on the device and the power switch on the power supply do not turn off the electrical current supplied to the device. The device also might have more than one power cord. To remove all electrical current from the device, ensure that all power cords are disconnected from the power source.



خطر

التيار الكهربائي الموجود بمصدر الطاقة أو أجهزة التلفزيون أو أسلاك الاتصالات يشكل خطورة.

لتفادي مخاطر الصدمات الكهربائية:

لا تحاول توصيل أو فصل أي أسلاك أو القيام بعمليات تركيب أو صيانة أو إعادة توصيف لهذا المنتج أثناء وجود عاصفة كهربائية.

يجب توصيل كل أسلاك الكهرباء في مخارج كهرباء ذات توصيلات أسلاك وتوصيلات أرضية صحيحة

يجب توصيل أي جهاز سيتم الحاقه بهذا المنتج في مخارج كهرباء ذات توصيلات أسلاك صحيحة.

وإن أمكن يجب استخدام يد واحدة فقط في توصيل أو فصل أسلاك الإشارة.

لا تحاول تشغيل أي جهاز إذا كان هناك أثر لحرق أو مياه أو تلف بالمكونات

يجب فصل أسلاك الكهرباء وأنظمة الاتصالات وشبكات الاتصال وأجهزة المودم الملحقة قبل فتح أغطية الجهاز، مالم يتم طلب خلاف ذلك في التعليمات الخاصة بالتركيب والتوصيف.

قم بتوصيل وفصل الأسلاك كما هو موضح في الجدول التالي وذلك عند القيام بعمليات التركيب أو النقل أو فتح أغطية هذا المنتج أو الأجهزة الملحقة.

للتوصيل:	للفصل:
قم بإيقاف كل شيء.	قم بإيقاف كل شيء.
أولاً، قم بتوصيل كل الأسلاك بالأجهزة.	أولاً، قم بفصل كل أسلاك الكهرباء من المخرج.
قم بتوصيل أسلاك الإشارة في لموصلات.	قم بفصل أسلاك الإشارة من الموصلات.
قم بتوصيل أسلاك الكهرباء في المخارج.	قم بفصل كل الأسلاك من الأجهزة.
قم بتشغيل الجهاز.	



تنبيه :

عند استبدال البطارية الليثيوم، استخدم فقط رقم الجزء الخاص **Part Number 45C1566** أو نوع آخر يكون على نفس مستوى الكفاءة يحدده لك المصنع.

إذا كان النظام الخاص يستخدم معه بطارية ليثيوم قم باستبدالها بنفس النوع الذي تم صناعته من خلال نفس المصنع. تحتوي البطارية على مادة الليثيوم ويمكن أن تنفجر في حالة عدم استخدامها أو التعامل معها بطريقة صحيحة أو عند التخلص منها بطريقة خطأ.

لا تقم بـ:

- القاء البطارية أو غمرها في الماء
- تسخينها أعلى من ١٠٠ درجة مئوية و(٢١٢ ° فهرنهايت)
- بتصليحها أو فكها

تخلص من البطارية طبقاً للقانون أو النظام المحلي .



تنبيه :

أثناء تركيب منتجات ليزر (مثل CD-ROMs أو وحدة تشغيل DVD أو أجهزة Fiber Optic أو وحدات الإرسال) يجب مراعاة الآتي:

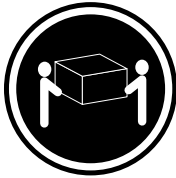
لا تنزع الأغطية. قد ينتج عن نزع أغطية منتج الليزر انفجار أشعة الليزر شديدة الخطورة.
لا يوجد أجزاء يمكن تغييرها داخل الجهاز. قد ينتج عن استخدام تحكمات أو تعديلات أو عمل أي تصرفات أخرى تخالف ما هو محدد هنا إلى انفجار أشعة شديدة الخطورة.



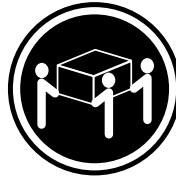
خطر

تحتوي بعض منتجات الليزر على الفئة دايود ليزر مدمج من الفئة Class 3A أو Class 3B. يجب مراعاة الآتي .

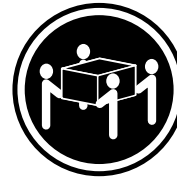
أشعة الليزر عند الفتح. لا تحقق إلى الإشعاع و لا تنظر إليه مباشرة بواسطة أي أجهزة مرئية وتجنب التعرض المباشر للإشعاع .



≥18 kg (37 lbs)



≥32 kg (70.5 lbs)



≥55 kg (121.2 lbs)

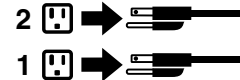
تنبيه :

يجب استخدام ممارسات آمنة عند الرفع



تنبيه :

لا يقيم زر التحكم في التشغيل الموجود على الجهاز والمفتاح الكهربائي الموجود على لوحة التحكم بإيقاف التيار الكهربائي المار بالجهاز. قد يكون للجهاز أكثر من سلك كهربائي واحد. لإيقاف التيار الكهربائي المار بالجهاز، تأكد من فصل جميع أسلاك الكهرباء من مصدر الكهرباء .



PERIGO

A corrente elétrica proveniente de cabos de alimentação, de telefone e de comunicações é perigosa.

Para evitar risco de choque elétrico:

- Não conecte nem desconecte nenhum cabo ou execute instalação, manutenção ou reconfiguração deste produto durante uma tempestade com raios.
- Conecte todos os cabos de alimentação a tomadas elétricas corretamente instaladas e aterradas.
- Todo equipamento que for conectado a este produto deve ser conectado a tomadas corretamente instaladas.
- Quando possível, utilize apenas uma das mãos para conectar ou desconectar cabos de sinal.
- Nunca ligue nenhum equipamento quando houver evidência de fogo, água ou danos estruturais.
- Antes de abrir tampas de dispositivos, desconecte cabos de alimentação, sistemas de telecomunicação, redes e modems conectados, a menos que especificado de maneira diferente nos procedimentos de instalação e configuração.
- Conecte e desconecte os cabos conforme descrito na tabela apresentada a seguir ao instalar, mover ou abrir tampas deste produto ou de dispositivos conectados.

Para Conectar:	Para Desconectar:
<ol style="list-style-type: none">1. DESLIGUE Tudo.2. Primeiramente, conecte todos os cabos aos dispositivos.3. Conecte os cabos de sinal aos conectores.4. Conecte os cabos de alimentação às tomadas.5. LIGUE os dispositivos.	<ol style="list-style-type: none">1. DESLIGUE Tudo.2. Primeiramente, remova os cabos de alimentação das tomadas.3. Remova os cabos de sinal dos conectores.4. Remova todos os cabos dos dispositivos.



CUIDADO:

Ao substituir a bateria de lítio, utilize apenas uma bateria com Número de Peça 45C1566 ou um tipo de bateria equivalente recomendado pelo Se o seu sistema possui um módulo com uma bateria de lítio, substitua-o apenas por um módulo do mesmo tipo e do mesmo fabricante. A bateria contém lítio e pode explodir se não for utilizada, manuseada ou descartada de maneira correta.

Não:

- Jogue ou coloque na água
- Aqueça a mais de 100°C (212°F)
- Conserte nem desmonte

Descarte a bateria conforme requerido pelas leis ou regulamentos locais.



PRECAUCIÓN:

Quando produtos a laser (como unidades de CD-ROMs, unidades de DVD-ROM, dispositivos de fibra ótica ou transmissores) estiverem instalados, observe o seguinte:

- Não remova as tampas. A remoção das tampas de um produto a laser pode resultar em exposição prejudicial à radiação de laser. Não existem peças que podem ser consertadas no interior do dispositivo.
- A utilização de controles ou ajustes ou a execução de procedimentos diferentes dos especificados aqui pode resultar em exposição prejudicial à radiação.

PERIGO

Alguns produtos a laser contêm diodo de laser integrado da Classe 3A ou da Classe 3B. Observe o seguinte:

Radiação a laser quando aberto. Não olhe diretamente para o feixe a olho nu ou com instrumentos ópticos e evite exposição direta ao feixe.



≥18 kg (37 lbs)



≥32 kg (70.5 lbs)



≥55 kg (121.2 lbs)

CUIDADO:

Utilize procedimentos de segurança para levantar equipamentos.



CUIDADO:

O botão de controle de alimentação do dispositivo e o botão para ligar/desligar da fonte de alimentação não desligam a corrente elétrica fornecida ao dispositivo. O dispositivo também pode ter mais de um cabo de alimentação. Para remover toda a corrente elétrica do dispositivo, assegure que todos os cabos de alimentação estejam desconectados da fonte de alimentação.



危险

电源、电话和通信电缆中的电流是危险的。

为避免电击危险：

- 请勿在雷电期间连接或断开任何电缆的连接，或者对本产品进行安装、维护或重新配置。
- 将所有电源线连接到正确连线和妥善接地的电源插座。
- 将所有要连接到该产品的设备连接到正确连线的插座。
- 如果可能，请仅使用一只手来连接或断开信号电缆的连接。
- 切勿在有火、水、结构损坏迹象的情况下开启任何设备。
- 在打开设备外盖之前请断开已连接的电源线、远程通信系统、网络和调制解调器，除非在安装和配置过程中另有说明。
- 当安装、移动或打开该产品或连接设备的外盖时，请按照下表所述来连接或断开电缆的连接。

要连接	要断开连接
<ol style="list-style-type: none">1. 切断所有电源。2. 首先将所有电缆连接到设备。3. 将信号电缆连接到接口。4. 将电源线连接到插座。5. 开启设备。	<ol style="list-style-type: none">1. 切断所有电源。2. 首先从插座上拔出电源线。3. 从接口上拔出信号电缆。4. 从设备上拔出所有电缆。



警告：
更换锂电池时，请仅使用部件号为 45C1566 的电池或制造商推荐的同类电池。如果您的系统有包含锂电池的模块，请仅使用同一制造商生产的相同模块类型来替换该模块。该电池中含有锂，如果使用、操作或处理不当，可能会发生爆炸。

切勿：

- 投入或浸入水中
- 加热到 100 °C (212 °F) 以上
- 维修或拆卸

请按照当地法令或条例的要求处理电池。



警告：
安装激光产品（例如 CD-ROM、DVD-ROM 驱动器、光纤设备或发射设备）时，请注意以下声明：

- 请勿卸下外盖。卸下激光产品的外盖可能导致遭受激光辐射的危险。该设备内没有可维修的部件。
- 如果不按照此处指定的过程进行控制、调整或操作，则有可能导致遭受辐射的危险。



危险

某些激光产品包含嵌入式 3A 类或 3B 类激光二极管。请注意以下声明：

打开后有激光辐射。请勿注视光束，请勿直接用光学仪器查看，并请避免直接暴露在光束中。



≥18 千克 (37 磅)



≥32 千克 (70.5 磅)

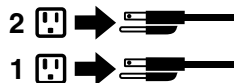


≥55 千克 (121.2 磅)

警告：
抬起时请采取安全措施。



警告：
设备上的电源控制按钮和电源上的电源开关不会切断供给该设备的电流。该设备还可能有多条电源线。要切断该设备的所有电流，请确保所有电源线都与电源断开连接。



危險

電源、電話及通訊纜線上的電流都具有危險性。

若要避免觸電危險：

- 請勿在雷雨期間，連接或拔除纜線、執行安裝、維護或重新配置本產品。
- 將所有電源線連接到正確配線及接地的電源插座。
- 任何與本產品連接的設備都必須連接到配線妥當的電源插座。
- 請盡可能用單手連接或拔除信號線。
- 發生火災、水災或結構損害時，絕對不要開啟任何設備。
- 除非在安裝及配置程序中另有指示，否則在開啟裝置機蓋之前，請拔掉連接的電源線、電信系統、網路及數據機。
- 安裝、移動或開啟本產品或附屬裝置的機蓋時，請遵循下列說明連接及拔掉纜線。

連線	切斷連線
<ol style="list-style-type: none">1. 關閉所有開關。2. 首先，連接所有接線到裝置。3. 連接信號線到接頭。4. 連接電源線到插座。5. 開啟裝置。	<ol style="list-style-type: none">1. 關閉所有開關。2. 首先，拔掉插座上的電源線。3. 拔掉接頭上的信號線。4. 拔掉裝置上所有接線。



警告：

更換鋰電池時，請僅使用產品編號 **45C1566** 或製造商所建議的同類型電池。
如果您的系統中含有鋰電池模組，請僅使用同一家製造商所生產的相同模組進行更換。
如果未以正確方式使用、處理或棄置含鋰的電池，會有爆炸的危險。
請勿：

- 沾溼或浸入水中
 - 置於 **100°C (212°F)** 以上的高溫環境
 - 修理或拆開
- 請按照各地區有關廢棄電池的法令和規定處理舊電池。



警告：

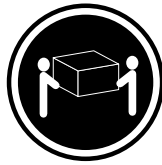
- 請勿移除機蓋。移除雷射產品的機蓋，可能會導致暴露在危險的雷射輻射中。裝置內部並無可自行維修的零件。
- 利用或執行非本文中所指定的控制、調整及執行程序，可能會導致危險的輻射外洩。



危險

部分雷射產品含有內嵌式 **Class 3A** 或 **Class 3B** 雷射二極體。請注意下列事項：
在開啟光碟機時，會發生雷射輻射。請勿直視光束或用光學儀器直接檢視，並避免直接暴露在光束中。

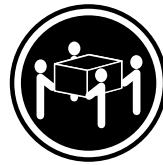




≥ 18 公斤 (37 磅)



≥ 32 公斤 (70.5 磅)

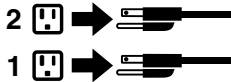


≥ 55 公斤 (121.2 磅)

警告：
搬運時請注意安全。



警告：
裝置上的電源控制按鈕及電源供應器上的電源開關，無法關閉裝置所產生的電流。
該裝置可能有多條電源線。若要除去裝置流出的所有電流，請確認已切斷所有電源線的電源。



DANGER

Le courant électrique provenant de l'alimentation, du téléphone et des câbles de transmission peut présenter un danger.

Pour éviter tout risque de choc électrique :

- Ne manipulez aucun câble et n'effectuez aucune opération d'installation, d'entretien ou de reconfiguration de ce produit au cours d'un orage.
- Branchez tous les cordons d'alimentation sur un socle de prise de courant correctement câblé et mis à la terre.
- Branchez sur des socles de prise de courant correctement câblés tout équipement connecté à ce produit.
- Lorsque cela est possible, n'utilisez qu'une seule main pour connecter ou déconnecter les câbles d'interface.
- Ne mettez jamais un équipement sous tension en cas d'incendie ou d'inondation, ou en présence de dommages matériels.
- Avant de retirer les carters de l'unité, mettez celle-ci hors tension et déconnectez ses cordons d'alimentation, ainsi que les câbles qui la relient aux réseaux, aux systèmes de télécommunication et aux modems (sauf instruction contraire mentionnée dans les procédures d'installation et de configuration).
- Lorsque vous installez, que vous déplacez, ou que vous manipulez le présent produit ou des périphériques qui lui sont raccordés, reportez-vous aux instructions ci-dessous pour connecter et déconnecter les différents cordons.

Connexion	Déconnexion
<ol style="list-style-type: none"> 1. Mettez les unités HORS TENSION. 2. Commencez par brancher tous les cordons sur les unités. 3. Branchez les câbles d'interface sur des connecteurs. 4. Branchez les cordons d'alimentation sur des prises. 5. Mettez les unités SOUS TENSION. 	<ol style="list-style-type: none"> 1. Mettez les unités HORS TENSION. 2. Débranchez les cordons d'alimentation des prises. 3. Débranchez les câbles d'interface des connecteurs. 4. Débranchez tous les câbles des unités.



ATTENTION:

Remplacer la pile au lithium usagée par une pile de référence identique exclusivement, (référence 45C1566), ou suivre les instructions du fabricant qui en définit les équivalences. Si votre système est doté d'un module contenant une pile au lithium, vous devez le remplacer uniquement par un module identique, produit par le même fabricant. La pile contient du lithium et peut exploser en cas de mauvaise utilisation, de mauvaise manipulation ou de mise au rebut inappropriée.

Ne pas :

- la jeter à l'eau,
- l'exposer à des températures supérieures à 100°C,
- chercher à la réparer ou à la démonter.

Ne pas mettre la pile à la poubelle. Pour la mise au rebut, se reporter à la réglementation en vigueur.



ATTENTION:

Si des produits à laser (tels que des unités de CD-ROM, de DVD-ROM, des unités à fibres optiques, ou des émetteurs) sont installés, prenez connaissance des informations suivantes :

- Ne retirez pas le carter. En ouvrant l'unité de CD-ROM ou de DVD-ROM, vous vous exposez au rayonnement dangereux du laser. Aucune pièce de l'unité n'est réparable.
- Pour éviter tout risque d'exposition au rayon laser, respectez les consignes de réglage et d'utilisation des commandes, ainsi que les procédures décrites dans le présent manuel.



DANGER

Certains produits à laser contiennent une diode à laser intégrée de classe 3A ou 3B. Prenez connaissance des informations suivantes:

Rayonnement laser lorsque le carter est ouvert. Evitez toute exposition directe au rayon laser. Evitez de regarder fixement le faisceau ou de l'observer à l'aide d'instruments optiques.



≥18 kg (37 lbs)



≥32 kg (70.5 lbs)



≥55 kg (121.2 lbs)

ATTENTION:

Soulevez la machine avec précaution.



ATTENTION:

L'interrupteur de contrôle d'alimentation de l'unité et l'interrupteur dubloc d'alimentation ne coupent pas le courant électrique alimentant l'unité. En outre, le système peut être équipé de plusieurs cordons d'alimentation. Pour mettre l'unité hors tension, vous devez déconnecter tous les cordons de la source d'alimentation.



VORSICHT

An Netz-, Telefon- und Datenleitungen können gefährliche Spannungen anliegen.

Aus Sicherheitsgründen:

- Bei Gewitter an diesem Gerät keine Kabel anschließen oder lösen. Ferner keine Installations-, Wartungs- oder Rekonfigurationsarbeiten durchführen.
- Gerät nur an eine Schutzkontaktsteckdose mit ordnungsgemäß geerdetem Schutzkontakt anschließen.
- Alle angeschlossenen Geräte ebenfalls an Schutzkontaktsteckdosen mit ordnungsgemäß geerdetem Schutzkontakt anschließen.
- Die Signalkabel nach Möglichkeit einhändig anschließen oder lösen, um einen Stromschlag durch Berühren von Oberflächen mit unterschiedlichem elektrischem Potenzial zu vermeiden.
- Geräte niemals einschalten, wenn Hinweise auf Feuer, Wasser oder Gebäudeschäden vorliegen.

- Die Verbindung zu den angeschlossenen Netzkabeln, Telekommunikationssystemen, Netzwerken und Modems ist vor dem Öffnen des Gehäuses zu unterbrechen, sofern in den Installations- und Konfigurationsprozeduren keine anders lautenden Anweisungen enthalten sind.
- Zum Installieren, Transportieren und Öffnen der Abdeckungen des Computers oder der angeschlossenen Einheiten die Kabel gemäß der folgenden Tabelle anschließen und abziehen.

Zum Anschließen der Kabel gehen Sie wie folgt vor	Zum Abziehen der Kabel gehen Sie wie folgt vor
<ol style="list-style-type: none"> 1. Schalten Sie alle Einheiten AUS. 2. Schließen Sie erst alle Kabel an die Einheiten an. 3. Schließen Sie die Signalkabel an die Buchsen an. 4. Schließen Sie die Netzkabel an die Steckdose an. 5. Schalten Sie die Einheit EIN. 	<ol style="list-style-type: none"> 1. Schalten Sie alle Einheiten AUS. 2. Ziehen Sie zuerst alle Netzkabel aus den Netzsteckdosen. 3. Ziehen Sie die Signalkabel aus den Buchsen. 4. Ziehen Sie alle Kabel von den Einheiten ab.



CAUTION:

Eine verbrauchte Lithiumbatterie nur durch eine Batterie mit der Teilenummer 45C1566 oder eine gleichwertige, vom Hersteller empfohlene Batterie ersetzen. Enthält das System ein Modul mit einer Lithiumbatterie, dieses nur durch ein Modul desselben Typs und von demselben Hersteller ersetzen. Die Batterie enthält Lithium und kann bei unsachgemäßer Verwendung, Handhabung oder Entsorgung explodieren.

Die Batterie nicht:

- mit Wasser in Berührung bringen.
- über 100 C erhitzen.
- reparieren oder zerlegen.

Die örtlichen Bestimmungen für die Entsorgung von Sondermüll beachten.



ACHTUNG:

Bei der Installation von Lasergeräten (wie CD-ROM-Laufwerken, DVD- aufwerken, Einheiten mit Lichtwellenleitertechnik oder Sendern) Folgendes beachten:

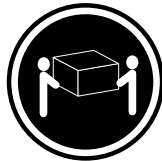
- Die Abdeckungen nicht entfernen. Durch Entfernen der Abdeckungen des Lasergeräts können gefährliche Laserstrahlungen freigesetzt werden. Das Gerät enthält keine zu wartenden Teile.
- Werden Steuerelemente, Einstellungen oder Durchführungen von Prozeduren anders als hier angegeben verwendet, kann gefährliche Laserstrahlung auftreten.



VORSICHT

Einige Lasergeräte enthalten eine Laserdiode der Klasse 3A oder 3B. Beachten Sie Folgendes:

Laserstrahlung bei geöffneter Verkleidung. Nicht in den Strahl blicken. Keine Lupen oder Spiegel verwenden. Strahlungsbereich meiden.



≥18 kg (37 lbs)



≥32 kg (70.5 lbs)



≥55 kg (121.2 lbs)

ACHTUNG:

Arbeitsschutzrichtlinien beim Anheben der Maschine beachten.



ACHTUNG:

Mit dem Netzschalter an der Einheit und am Netzteil wird die Stromversorgung für die Einheit nicht unterbrochen. Die Einheit kann auch mit mehreren Netzkabeln ausgestattet sein. Um die Stromversorgung für die Einheit vollständig zu unterbrechen, müssen alle zum Gerät führenden Netzkabel vom Netz getrennt werden.



סכנה

זרם חשמלי המועבר בכבלי חשמל, טלפון ותקשורת הוא מסוכן.

כדי להימנע מסכנת התחשמלות:

- אל תחברו או תנתקו כבלים, ואל תבצעו פעולת התקנה, תחזוקה או שינוי תצורה במוצר זה במהלך סופת ברקים.
- חברו את כל כבלי החשמל לשקע חשמל מחווט ומוארק כהלכה.
- חברו כל ציוד שיחובר למוצר זה לשקעי חשמל מחוטים כהלכה.
- במידת האפשר, השתמשו ביד אחת בלבד לחיבור או לניתוק של כבלי אותות.
- לעולם אל תפעילו ציוד כלשהו כאשר יש עדות לנזק מבני או לנזק כתוצאה מאש או ממים.
- נתקו את כבלי החשמל, מערכות התקשורת, התקני הרשת והמודמים המחוברים לפני פתיחת כיסויי ההתקן, אלא אם הליכי ההתקנה וקביעת התצורה מורים אחרת.
- בעת התקנה, העברה או פתיחת כיסויים במוצר זה או בהתקנים המחוברים, חברו ונתקו את הכבלים כמתואר בטבלה שלהלן.

כדי לחבר	כדי לנתק
1. כבו הכל.	1. כבו הכל.
2. ראשית, חברו את כל הכבלים להתקנים.	2. ראשית, נתקו את כבלי החשמל מהשקעים.
3. חברו את כבלי האותות למחברים.	3. נתקו את כבלי האותות מהמחברים.
4. חברו את כבלי החשמל לשקעים.	4. הסירו את כל הכבלים מההתקנים.
5. הפעילו את ההתקן.	



זהירות:

בעת החלפת סוללת הליתיום, השתמשו רק בסוללה בעלת מק"ט 45C1566 או בסוג תואם שהומלץ על ידי היצרן. אם המערכת כוללת מודול המכיל סוללת ליתיום, החליפו אותו רק במודול מאותו סוג ומתוצרת אותו יצרן. הסוללה מכילה ליתיום, ועלולה להתפוצץ אם לא משתמשים ומטפלים בה או משליכים אותה כראוי.

לעולם:

- אל תטבלו במים
 - אל תחממו לטמפרטורה הגבוהה מ-100°C (212°F)
 - אל תתקנו או תפרקו
- השליכו את הסוללה כנדרש לפי התקנות והחוקים המקומיים.



זהירות:

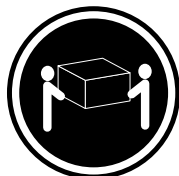
בעת התקנת מוצרי לייזר (כגון כונני תקליטורים ו-DVD, התקני סיב אופטי או משדרים), שימו לב לאזהרות הבאות:

- אל תסירו את הכיסויים. הסרת הכיסויים של מוצר הלייזר עלולה לגרום לחשיפה לקרינת לייזר מסוכנת. אין חלקים ברי טיפול בתוך ההתקן.
- שינויים, שימוש בבקורות או ביצוע הליכים אחרים מאלה המתוארים כאן, עלולים לגרום לחשיפה לקרינה מסוכנת.



סכנה

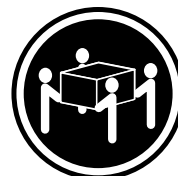
מוצרי ליזר מסוימים מכילים דיודת ליזר מסוג Class 3A או Class 3B. שימו לב לאזהרה הבאה:
כאשר הוא פתוח, המוצר פולט קרינת ליזר. אל תביטו ישירות בקרן, אל תביטו ישירות בעזרת ציוד אופטי, והימנעו מחשיפה לקרן.



$18 \leq$ ק"ג (37 ליב')



$32 \leq$ ק"ג (70.5 ליב')



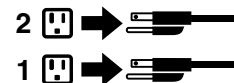
$55 \leq$ ק"ג (121.2 ליב')

זהירות:
השתמשו בהליכים
הנאותים בעת
הרמת הציוד.



זהירות:

לחצן ההפעלה של ההתקן ומתג ההפעלה של ספק החשמל אינם מפסיקים את זרם החשמל המסופק להתקן. בנוסף, ההתקן עשוי לכלול יותר מכבל חשמל אחד. כדי לסלק את כל הזרם החשמלי מההתקן, ודאו שכל כבלי החשמל מנותקים ממקור החשמל.



PERICOLO

La corrente elettrica proveniente dai cavi di alimentazione, del telefono e di comunicazione può essere pericolosa.

Per evitare il rischio di scosse elettriche:

- **Non collegare o scollegare qualsiasi cavo oppure effettuare l'installazione, la manutenzione o la riconfigurazione del prodotto durante un temporale.**
- **Collegare tutti i fili elettrici a una presa di alimentazione correttamente cablata e dotata di messa a terra.**
- **Collegare alle prese elettriche appropriate tutte le apparecchiature che verranno utilizzate per questo prodotto.**

- Se possibile, utilizzare solo una mano per collegare o scollegare i cavi di segnale.
- Non accendere assolutamente apparecchiature in presenza di incendi, perdite d'acqua o danno strutturale.
- Scollegare i cavi di alimentazione, i sistemi di telecomunicazione, le reti e il modem prima di aprire i coperchi del dispositivo, salvo istruzioni contrarie relative alle procedure di installazione e configurazione.
- Collegare e scollegare i cavi come descritto nella seguente tabella quando vengono effettuate operazioni di installazione, spostamento o apertura dei coperchi di questo prodotto o delle unità collegate.

Per collegarsi	Per scollegarsi
<ol style="list-style-type: none"> 1. SPEGNERE le apparecchiature. 2. Innanzitutto, collegare tutti i cavi alle unità. 3. Collegare i cavi di segnale ai connettori. 4. Collegare i cavi di alimentazione alla presa. 5. Accendere l'unità. 	<ol style="list-style-type: none"> 1. SPEGNERE le apparecchiature. 2. Innanzitutto, rimuovere i cavi di alimentazione dalla presa. 3. Rimuovere i cavi di segnale dai connettori. 4. Rimuovere tutti i cavi dalle unità.



ATTENZIONE:

Quando si sostituisce la batteria al litio, utilizzare solo il Numero parte 45C1566 o un tipo di batteria equivalente consigliato dal produttore. Se sul sistema è presente un modulo che contiene una batteria al litio, sostituirlo solo con un tipo di modulo dello stesso tipo della stessa casa di produzione. La batteria contiene litio e può esplodere se usata, maneggiata o smaltita in modo non corretto.

Non:

- Gettare o immergere la batteria nell'acqua
- Riscaldarla ad una temperatura superiore ai 100 gradi C (212 gradi F)
- Smontarla, ricaricarla o tentare di ripararla

Le batterie usate vanno smaltite in accordo alla normativa in vigore (DPR 915/82 e successive disposizioni e disposizioni locali).



ATTENZIONE:

Quando vengono installati prodotti laser (quali CD-ROM, unità DVD-ROM, unità a fibre ottiche o trasmettenti), tener presente quanto segue:

- Non rimuovere gli sportelli. L'apertura di un'unità laser può determinare l'esposizione a radiazioni laser pericolose. All'interno dell'unità non vi sono parti su cui effettuare l'assistenza tecnica.
- L'utilizzo di controlli, regolazioni o l'esecuzione di procedure non descritti nel presente manuale possono provocare l'esposizione a radiazioni pericolose.



PERICOLO

Alcune unità laser contengono un diodo laser di Classe 3A o Classe 3B. Tener presente quanto segue:

Aperto l'unità vengono emesse radiazioni laser. Non fissare il fascio, non guardarlo direttamente con strumenti ottici ed evitare l'esposizione al fascio.



≥18 kg (37 lbs)



≥32 kg (70.5 lbs)



≥55 kg (121.2 lbs)

ATTENZIONE:

Prestare attenzione nel sollevare l'apparecchiatura.



ATTENZIONE:

Il pulsante di controllo dell'alimentazione presente sull'unità e l'interruttore dell'alimentatore non disattivano l'alimentazione corrente fornita all'unità. E' possibile che l'unità disponga di più cavi di alimentazione. Per disattivare l'alimentazione dall'unità, accertarsi che tutti i cavi di alimentazione siano scollegati dalla fonte di alimentazione.



위험

전원, 전화, 통신 케이블의 전류는 위험합니다.

감전의 위험을 피하려면 다음과 같이 하십시오.

- 번개가 치는 날에는 케이블을 연결 또는 분리하거나 본 제품을 설치, 보수, 재구성하지 마십시오.
- 모든 전원 코드는 올바르게 접지된 전기 콘센트에 연결하십시오.
- 본 제품에 연결될 장치는 올바르게 배선된 콘센트에 연결하십시오.
- 신호 케이블을 연결 또는 분리할 때 가능하면 한 손만을 사용하십시오.
- 불 또는 물로 인한 손상이나 구조적인 손상이 있을 경우 장치의 전원을 절대 켜지 마십시오.
- 설치 및 구성 과정에 별도의 지시 사항이 없는 경우, 장치의 덮개를 열기 전에 연결된 전원 코드, 원격 통신 시스템, 네트워크, 모뎀을 분리하십시오.
- 본 제품이나 연결된 장치를 설치, 이동하거나 덮개를 열 때 다음 표와 같은 순서로 케이블을 연결하거나 분리하십시오.

연결할 때:	분리할 때:
<ol style="list-style-type: none">1. 모든 장치의 전원을 끄십시오.2. 먼저 모든 케이블을 장치에 연결하십시오.3. 커넥터에 신호 케이블을 연결하십시오.4. 콘센트에 전원 코드를 연결하십시오.5. 장치의 전원을 켜십시오.	<ol style="list-style-type: none">1. 모든 장치의 전원을 끄십시오.2. 먼저 콘센트에서 전원 코드를 분리하십시오.3. 커넥터에서 신호 케이블을 분리하십시오.4. 장치에서 모든 케이블을 분리하십시오.



주의:

배터리를 교환할 때는 Part Number 45C1566 또는 제조업체에서 지정한 동일한 종류의 제품을 사용하십시오. 사용자의 시스템이 리튬 배터리를 포함하는 모듈일 경우, 동일한 제조업체에서 동일한 모듈 유형으로 생산된 제품으로 교체하십시오. 배터리에는 리튬이 함유되어 있어 잘못 사용, 취급 또는 폐기할 경우 폭발의 위험이 있습니다.

사고를 방지하려면 다음 사항을 준수하십시오.

- 배터리를 물 속에 던지거나 침수시키지 마십시오.
- 100°C (212°F) 이상 가열하지 마십시오.
- 수리하거나 분해하지 마십시오.

배터리를 폐기할 때는 법령 또는 회사의 안전 수칙에 따라 폐기하십시오.



주의:

CD-ROM, DVD-ROM 장치, 광섬유 장치 또는 송신 장치와 같은 레이저 제품을 설치할 때, 다음과 같은 취급 주의사항을 참고하십시오.

- 덮개를 열지 마십시오. 덮개를 열면 레이저 복사 에너지에 노출될 위험이 있습니다. 장치 내부에는 사용자가 조정하거나 수리할 수 있는 부품이 없습니다.
- 규정된 것 이외의 절차 수행, 제어 조정 등의 행위로 인해 해로운 레이저 복사에 노출될 수 있습니다.



위험

일부 장비에는 임베디드 클래스 3A 또는 클래스 3B 레이저 다이오드가 있습니다. 다음 주의사항에 유의하십시오.

드라이브가 열리면 레이저 복사 에너지가 방출됩니다. 광선이 눈에 직접 쏘이지 않도록 하십시오. 나안 또는 광학 기구를 착용한 상태에서 광선을 직접 바라보지 않도록 하십시오.



≥ 18 kg (37 lbs)



≥ 32 kg (70.5 lbs)



≥ 55 kg (121.2 lbs)

주의:
제품을 들어 올릴 때
안전 규제를 따르십시오.



주의:
장치의 전원 제어 버튼 및 전원 공급 장치의 전원 스위치를 사용하여 장치에 공급되는 전기를 차단하지 마십시오.
장치는 둘 이상의 코드를 가지고 있을 수 있습니다. 장치에서 모든 전원을 차단하려면 콘센트에서 코드가 모두
분리되어 있는지 확인하십시오.



PELIGRO

La corriente eléctrica procedente de cables de alimentación, teléfonos y cables de comunicación puede ser peligrosa.

Para evitar el riesgo de descarga eléctrica:

- No conecte ni desconecte los cables ni realice ninguna tarea de instalación, mantenimiento o reconfiguración de este producto durante una tormenta eléctrica.
- Conecte todos los cables de alimentación a tomas de corriente debidamente cableadas y conectadas a tierra.
- Cualquier equipo que se conecte a este producto también debe conectarse a tomas de corriente debidamente cableadas.
- Siempre que sea posible, utilice una sola mano para conectar o desconectar los cables de señal.
- No encienda nunca un equipo cuando hay señales de fuego, agua o daños estructurales.

- **Desconecte los cables de alimentación, los sistemas de telecomunicaciones, las redes y los módems conectados antes de abrir las cubiertas de los dispositivos, a menos que se indique lo contrario en los procedimientos de instalación y configuración.**
- **Conecte y desconecte los cables, como se describe en la tabla siguiente, cuando instale, mueva o abra las cubiertas de este producto o de los dispositivos conectados.**

Para conectar	Para desconectar
<ol style="list-style-type: none"> 1. APÁGUELO todo. 2. En primer lugar, conecte todos los cables a los dispositivos. 3. Conecte los cables de señal a los conectores. 4. Enchufe los cables de alimentación a las tomas de corriente. 5. Encienda el dispositivo. 	<ol style="list-style-type: none"> 1. APÁGUELO todo. 2. En primer lugar, desenchufe los cables de alimentación de las tomas de corriente. 3. Desconecte los cables de señal de los conectores. 4. Desconecte todos los cables de los dispositivos.



PRECAUCIÓN:

Quando substitua uma bateria de lítio, utilize somente uma bateria número de peça 45C1566 u outra de tipo equivalente recomendada por el fabricante. Si su sistema dispone de un módulo que contiene una batería de litio, reemplácelo sólo con el mismo tipo de módulo, del mismo fabricante. La batería contiene litio y puede explotar si no se utiliza, manipula o desecha correctamente.

No debe:

- Arrojarla al agua o sumergirla en ella
- Exponerla a temperaturas superiores a 100°C (212°F)
- Repararla o desmontarla

Deshágase de la batería según especifiquen las leyes o normas locales.



PRECAUCIÓN:

Quando haya productos láser (como unidades de CD-ROM, unidades de DVD, dispositivos de fibra óptica o transmisores) instalados, tenga en cuenta lo siguiente:

- No quite las cubiertas. Si quita las cubiertas del producto láser, podría quedar expuesto a radiación láser peligrosa. Dentro del dispositivo no existe ninguna pieza que requiera servicio técnico.
- Si usa controles o ajustes o realiza procedimientos que no sean los especificados aquí, podría exponerse a radiaciones peligrosas.



PELIGRO

Algunos productos láser tienen incorporado un diodo láser de clase 3A o clase 3B. Tenga en cuenta lo siguiente:

Cuando se abre, queda expuesto a radiación láser. No mire directamente al rayo láser, ni siquiera con instrumentos ópticos, y evite exponerse directamente al rayo láser.



≥18 kg (37 lbs)



≥32 kg (70.5 lbs)



≥55 kg (121.2 lbs)

PRECAUCIÓN:

Adopte procedimientos seguros al levantar el equipo.



PRECAUCIÓN:

El botón de control de alimentación del dispositivo y el interruptor de alimentación de la fuente de alimentación no desconectan la corriente eléctrica suministrada al dispositivo. Además, el dispositivo podría tener más de un cable de alimentación. Para suprimir toda la corriente eléctrica del dispositivo, asegúrese de que todos los cables de alimentación estén desconectados de la toma de corriente.



Chapter 3. General information

This chapter provides general information that applies to all machine types supported by this publication.

Lenovo ThinkVantage Tools

The Lenovo ThinkVantage® Tools program guides you to a host of information sources and provides easy access to various tools to help you work more easily and securely.

Note: The Lenovo ThinkVantage Tools program is only available on computers with Windows 7 from Lenovo.

ThinkVantage Productivity Center

The ThinkVantage Productivity Center program guides you to a host of information and tools to help you set up, understand, maintain, and enhance your computer.

Note: The ThinkVantage Productivity Center program is only available on computers preinstalled with Windows XP from Lenovo.

Lenovo Solution Center

The Lenovo Solution Center program enables you to troubleshoot and resolve computer problems. It combines diagnostic tests, system information collection, security status, and support information, along with hints and tips for maximum system performance. See “Lenovo Solution Center” on page 34 for detailed information.

SimpleTap

The SimpleTap program provides you with a quick way to customize some basic computer settings such as muting the speakers, adjusting the volume, locking the computer operating system, launching a program, opening a Web page, opening a file, and so on. You also can use the SimpleTap program to access the Lenovo App Shop, from which you can download various applications and computer software.

To start the SimpleTap program in a quick way, do any of the following:

- Click the red SimpleTap launch point on the desktop. The red launch point is available on the desktop after you have launched the SimpleTap program for the first time.
- Press the blue ThinkVantage button if your keyboard has one.

Note: The SimpleTap program is only available on certain models preinstalled with the Windows 7 operating system. If your Windows 7 model is not preinstalled with the SimpleTap program, you can download it from <http://www.lenovo.com/support>.

Additional information resources

If you have Internet access, the most up-to-date information for your computer is available from the World Wide Web.

You can find the following information:

- CRU removal and installation instructions
- Publications
- Troubleshooting information

- Parts information
- Downloads and drivers
- Links to other useful sources of information

To access this information, go to:
<http://www.lenovo.com/support/>

Specifications

This section lists the physical specifications for your computer.

Dimensions

Width: 472 mm (18.58 inches)

Height: 355 mm (13.98 inches)

Depth: 70 mm (2.76 inches)

Weight

Maximum configuration as shipped: 7.2 kg (15.87 lbs)

Environment

- Air temperature:
 - Operating: 10° to 35°C (50° to 95°F)
 - Non-operating: -20° to 50°C (-4° to 122°F) (with package)
- Humidity:
 - Operating: 20% to 80% (10% per hour, non condensing)
 - Non-operating: 10% to 90% (10% per hour, non condensing)
- Maximum altitude:
 - Operating: -50 to 10 000 ft (-15.2 to 3 048 m)
 - Non-operating: -50 to 35 000 ft (-15.2 to 10 668 m)

Electrical input

- Input voltage:
 - Low range:
 - Minimum: 100 V ac
 - Maximum: 127 V ac
 - Input frequency range: 50 to 60 Hz
 - High range:
 - Minimum: 200 V ac
 - Maximum: 240 V ac
 - Input frequency range: 50 to 60 Hz

Chapter 4. General Checkout

Attention

The drives in the computer you are servicing might have been rearranged or the drive startup sequence changed. Be extremely careful during write operations such as copying, saving, or formatting. Data or programs can be overwritten if you select an incorrect drive.

General error messages appear if a problem or conflict is found by an application program, the operating system, or both. For an explanation of these messages, refer to the information supplied with that software package.

Before replacing any FRUs, ensure that the latest level of BIOS is installed on the system. A down-level BIOS might cause false errors and unnecessary replacement of the system board. For more information on how to determine and obtain the latest level BIOS, see “BIOS levels” on page 179.

Use the following procedure to help determine the cause of the problem:

1. Power-off the computer and all external devices.
2. Check all cables and power cords.
3. Set all display controls to the middle position.
4. Power-on all external devices.
5. Power-on the computer.
 - Look for displayed error codes
 - Listen for beep codes
 - Look for readable instructions or a main menu on the display.

If you *did not* receive the correct response, proceed to step 6 on page 31.

If you *do* receive the correct response, proceed to step 7 on page 31.
6. Look at the following conditions and follow the instructions:
 - If you hear beep codes during POST, go to “Beep symptoms” on page 59.
 - If the computer displays a POST error, go to “POST error codes” on page 60.
 - If the computer hangs and no error is displayed, continue at step 7 on page 31.
7. Run the Diagnostic programs. See Chapter 5 “Diagnostics” on page 33.
 - If you receive an error, replace the part that the diagnostic program calls out or go to “Diagnostic error codes” on page 42.
 - If the test stops and you cannot continue, replace the last device tested.

Problem determination tips

Due to the variety of hardware and software combinations that can be encountered, use the following information to assist you in problem determination. If possible, have this information available when requesting assistance from Service Support and Engineering functions.

- Machine type and model
- Processor or hard disk drive upgrades
- Failure symptom
 - Do diagnostics indicate a failure?
 - What, when, where, single, or multiple systems?
 - Is the failure repeatable?

- Has this configuration ever worked?
- If it has been working, what changes were made prior to it failing?
- Is this the original reported failure?
- Diagnostics version
 - Type and version level
- Hardware configuration
 - Print (print screen) configuration currently in use
 - BIOS level
- Operating system software
 - Type and version level

Notes: To eliminate confusion, identical systems are considered identical only if they:

1. Are the exact machine type and models
2. Have the same BIOS level
3. Have the same adapters/attachments in the same locations
4. Have the same address jumpers/terminators/cabling
5. Have the same software versions and levels
6. Have the same Diagnostic Diskettes (version)
7. Have the same configuration options set in the system
8. Have the same setup for the operating system control files

Comparing the configuration and software set-up between “working and non-working” systems will often lead to problem resolution.

Chapter 5. Diagnostics

Diagnostic programs are used to test hardware components of your computer. Diagnostic programs can also report operating-system-controlled settings that interfere with the correct operation of your system. You can use the preinstalled diagnostic program to diagnose computer problems, if your computer is running in the Windows® operating system.

Notes:

1. Depending on the date when your computer was manufactured, your computer is preinstalled with either the Lenovo Solution Center program or the Lenovo ThinkVantage Toolbox program for diagnostic purposes. For more information about the Lenovo ThinkVantage Toolbox program, see “Lenovo ThinkVantage Toolbox” on page 33. For more information about the Lenovo Solution Center program, see “Lenovo Solution Center” on page 34.
2. You can also download the PC-Doctor for DOS diagnostic program from <http://www.lenovo.com/support>. See “PC-Doctor for DOS” on page 34 for detailed information.
3. If you are unable to isolate and repair the problem yourself after running the programs, save and print the log files created by the programs. You will need the log files when you speak to a Lenovo technical support representative.

Lenovo ThinkVantage Toolbox

Note: The Lenovo ThinkVantage Toolbox program is only available on computers preinstalled with Windows 7 from Lenovo.

The Lenovo ThinkVantage Toolbox program helps you maintain your computer, improve computing security, diagnose computer problems, get familiar with the innovative technologies provided by Lenovo, and get more information about your computer. You can use the Diagnostics feature of the Lenovo ThinkVantage Toolbox program to test devices, diagnose problems, create bootable diagnostic media, update system drivers, and review system information.

To diagnose the computer problems by using the Lenovo ThinkVantage Toolbox program, click **Start → All Programs → Lenovo ThinkVantage Tools → System Health and Diagnostics → Diagnostics**. Follow the instructions on the screen. For additional information, refer to the Lenovo ThinkVantage Toolbox help system.

Lenovo System Toolbox

Note: The Lenovo System Toolbox program is only available on computers preinstalled with Windows XP from Lenovo.

The Lenovo System Toolbox program is a diagnostic program that works through the Windows operating system and enables you to view symptoms and solutions for computer problems, access the Lenovo troubleshooting center, update system drivers, and review system information.

To run the Lenovo System Toolbox program, click **Start → All Programs → Lenovo Services → Lenovo System Toolbox**. Follow the instructions on the screen. For additional information about running the diagnostic program, refer to the Lenovo System Toolbox help system.

The Lenovo System Toolbox program also has problem determination aids that determine software and usage problems.

Lenovo Solution Center

The Lenovo Solution Center program enables you to troubleshoot and resolve computer problems. It combines diagnostic tests, system information collection, security status, and support information, along with hints and tips for maximum system performance.

Notes:

- The Lenovo Solution Center program is available only on models preinstalled with the Windows 7 operating system. If your Windows 7 model is not preinstalled with the program, you can download it from <http://www.lenovo.com/diagnose>.
- If you are using the Windows Vista or Windows XP operating system, go to <http://www.lenovo.com/diagnose> for the latest information on diagnostics for your computer.

To run the Lenovo Solution Center program on the Windows 7 operating system, click **Start → All Programs → Lenovo ThinkVantage Tools → System Health and Diagnostics**. Follow the instructions on the screen.

For additional information, refer to the Lenovo Solution Center help system.

Note: If you are unable to isolate and repair the problem yourself after running the program, save and print the log files created by the program. You will need the log files when you speak to a Lenovo technical support representative.

PC-Doctor for DOS

You can also download the latest version of the PC-Doctor for DOS diagnostic program from <http://www.lenovo.com/support>. The PC-Doctor for DOS diagnostic program runs independently of the Windows operating system. Use the PC-Doctor for DOS if you are unable to start the Windows operating system or if the two diagnostic programs preinstalled on your computer have not been successful in isolating a possible problem. You can run the PC-Doctor for DOS from a diagnostic disc that you created.

Creating a diagnostic disc

This section provides instructions on how to create a diagnostic disc.

To create a diagnostic disc, do the following:

1. Download a self-starting bootable CD/DVD image (known as an ISO image) of the diagnostic program from:
<http://www.lenovo.com/support>
2. Use any CD/DVD burning software to create a diagnostic disc with the ISO image.

Running the diagnostic program from a diagnostic disc

This section provides instructions on how to run the diagnostic program from a diagnostic disc that you created.

To run the diagnostic program from a diagnostic disc that you created, do the following:

1. Make sure the optical drive you want to use is set as the first boot device in the startup device sequence. See “Selecting or changing the startup device sequence” on page 39.
2. Make sure the computer is turned on and then insert the disc into the optical drive. The diagnostic program opens.

Note: You can insert the disc into the optical drive when you are setting the startup device sequence. However, if you insert the disc into the optical drive when you have already entered the operating system, you need to restart the computer to access the diagnostic program.

3. Follow the instructions on the screen to select the diagnostic test you want to run.

Note: For additional help, press the F1 key.

4. Remove the diagnostic disc from the optical drive when you complete the diagnostic process.

Navigating through the diagnostics programs

Use the cursor movement keys to navigate within the menus.

- The Enter key is used to select a menu item.
- The Esc key is used to back up to the previous menu.
- For online help select F1.

Running tests

There are four ways to run the diagnostic tests.

- Using the cursor movement keys, highlight **Run Normal Test** or **Run Quick Test** from the Diagnostics menu and then press Enter. This automatically runs a pre-defined group of tests from each test category. **Run Normal Test** runs a more extensive set of tests than does **Run Quick Test** and takes longer to complete.
- Press F5 to automatically run all selected tests in all categories.
- From within a test category, press Ctrl-Enter to automatically run only the selected tests in that category.
- Using the cursor movement keys, highlight a single test within a test category, and then press Enter. This runs only that test.

Press Esc at any time to stop the testing process.

Test results (N/A, PASSED, FAILED, ABORTED) are displayed in the field beside the test description and in the test log. See “Viewing the test log” on page 36.

To select one or more tests, use the following procedure.

1. Open the corresponding test category.
2. Using the cursor movement keys, highlight the desired test.
3. Press the space bar. A selected test is marked by >>. Pressing the space bar again de-selects a test and removes the >>.
4. Repeat steps 2 and 3 above to select all desired tests.

Test results

Diagnostics test results produce the following error code format:

Function Code	Failure Type	DeviceID	Date	ChkDigits	Text
---------------	--------------	----------	------	-----------	------

- **Function Code:**
Represents the feature or function within the PC.
- **Failure Type:**
Represents the type of error encountered.

- **DeviceID:**
Contains the component's unit-ID which corresponds to either a fixed disk drive, removable media drive, serial or parallel port, processor, specific RIMM, or a device on the PCI bus.
- **Date:**
Contains the date when the diagnostic test was run. The date is retrieved from CMOS and displayed using the YYYYMMDD format.
- **ChkDigits:**
Contains a 2-digit check-digit value to ensure the following:
 - Diagnostics were run on the specified date.
 - Diagnostics were run on the specified computer.
 - The diagnostic error code is recorded correctly.
- **Text:**
Description of the error.

Note: See “Diagnostic error codes” on page 42 for error code listings.

Quick and Full erase - hard drive

The diagnostics program offers two hard drive format utilities:

- Quick Erase Hard Drive
- Full Erase Hard Drive

The Quick Erase Hard Drive provides a DOS utility that performs the following:

- Destroys the Master Boot Record (MBR) on the hard drive.
- Destroys all copies of the FAT Table on all partitions (both the master and backup).
- Destroys the partition table.
- Provides messages that warn the user that this is a non-recoverable process.

The Full Erase Hard Drive provides a DOS utility that performs the following:

- Performs all the steps in Quick Erase.
- Provides a DOS utility that writes random data to all sectors of the hard drive.
- Provides an estimate of time to completion along with a visual representation of completion status.
- Provides messages that warn the user about non-recoverable process.

Important: Make sure that all data is backed up before using the Quick or Full Erase functions.

To select the Quick Erase or Full Erase Hard Drive utility. Do the following:

1. Select the UTILITY option on the toolbar and press **Enter**.
2. Select either the QUICK ERASE or FULL ERASE HARD DISK option and follow the instructions.

Viewing the test log

Errors reported by the diagnostic test will be displayed by the program as a failed test.

To view details of a failure or to view a list of test results, use the following procedure from any test category screen:

1. Press **F3** to activate the log file.
2. Press **F3** again to save the file to diskette or press **F2** to print the file.

Chapter 6. Using the Setup Utility

The Setup Utility program is used to view and change the configuration settings of the computer, regardless of which operating system you are using. However, the operating-system settings might override any similar settings in the Setup Utility program.

Starting the Setup Utility program

To start the Setup Utility program, do the following:

1. Make sure your computer is turned off.
2. Repeatedly press and release the F1 key when turning on the computer. When you hear multiple beeps or see a logo screen, release the F1 key. The Setup Utility program opens.

Note: If a password has been set, the Setup Utility program menu will not be displayed until you type the correct password. For more information, see “Using passwords” on page 37.

Viewing and changing settings

The Setup Utility program menu lists various items about the system configuration. To view or change settings, start the Setup Utility program. See “Starting the Setup Utility program” on page 37. Then, follow the instructions on the screen.

When working with the Setup Utility program, you must use the keyboard. The keys used to perform various tasks are displayed at the bottom of each screen.

Using passwords

By using the Setup Utility program, you can set passwords to prevent unauthorized access to your computer and data. The following options are available for you to set a User Password or an Administrator password:

- **Set User Password**
- **Set Administrator Password**

You do not have to set any passwords to use your computer. However, using passwords improves computing security. If you decide to set any passwords, read the following sections.

Password considerations

A password can be any combination of up to sixteen alphabetic and numeric characters. For security reasons, it is recommended to use a strong password that cannot be easily compromised. To set a strong password, use the following guidelines:

- Have at least eight characters in length
- Contain at least one alphabetic character and one numeric character
- Setup Utility program passwords are not case sensitive
- Not be your name or your user name
- Not be a common word or a common name
- Be significantly different from your previous passwords

Set User Password

After you have set a User Password using the **Set User Password** option, the user is prompted to type a valid User Password each time the computer is turned on. The computer cannot be used until a valid User Password is typed in. For more information on how to set a password, see “Setting, changing, and deleting a password” on page 38.

Set Administrator Password

The **Set Administrator Password** option enables you to set an Administrator Password, which deters unauthorized users from changing configuration settings. If you are responsible for maintaining the settings of several computers, you might want to set an Administrator Password. For more information on how to set a password, see “Setting, changing, and deleting a password” on page 38.

After you have set an Administrator Password, a password prompt is displayed each time you try to access the Setup Utility program. You cannot access the Setup Utility program until a valid Administrator Password is typed in.

If you have set both the User Password and the Administrator Password, you can type either password. However, to change any configuration settings, you must use your Administrator Password.

Setting, changing, and deleting a password

To set, change, or delete a password, do the following:

1. Start the Setup Utility program. See “Starting the Setup Utility program” on page 37.
2. From the Setup Utility program main menu, select **Security**.
3. Follow the instructions displayed on the screen to set, change, or delete a password.

Note: A password can be any combination of up to sixteen alphabetic and numeric characters. For more information, see “Password considerations” on page 37.

Enabling or disabling a device

This section provides instructions on how to enable or disable user access to the devices connected to the SATA connectors on the system board.

USB Functions	Use this option to enable or disable the USB connectors.
SATA Controller	When this option is set to Disabled , all devices connected to the SATA connectors (such as hard disk drives or the optical drive) are disabled and cannot be accessed.

To enable or disable a device, do the following:

1. Start the Setup Utility program. See “Starting the Setup Utility program” on page 37.
2. From the Setup Utility program main menu, select **Devices**.
3. Depending on the device you want to enable or disable, do one of the following:
 - Select **USB Setup** to enable or disable a USB device.
 - Select **ATA Drives Setup** to enable or disable a SATA device.
4. Select the desired settings and press Enter.
5. Press Esc to return to the Setup Utility program main menu. You might have to press Esc several times.
6. Press F10 to save and exit the Setup Utility program. See “Exiting from the Setup Utility program ” on page 39.

Note: If you do not want to save the settings, select **Exit → Discard Changes and Exit**.

Selecting a startup device

If your computer does not start up from a device such as the hard disk drive or the disc in the optical drive as expected, do one of the following to select the startup device you want.

Selecting a temporary startup device

Use this procedure to start up from any startup device.

Note: Not all discs, hard disk drives, and diskettes are bootable.

To select a temporary startup device, do the following:

1. Turn off your computer.
2. Repeatedly press and release the F12 key when turning on the computer. When the **Startup Device Menu** opens, release the F12 key.
3. Select the desired startup device from the **Startup Device Menu** and press Enter to begin.

Note: Selecting a startup device from the **Startup Device Menu** does not permanently change the startup sequence.

Selecting or changing the startup device sequence

To view or permanently change the configured startup device sequence, do the following:

1. Start the Setup Utility program. See “Starting the Setup Utility program” on page 37.
2. Select **Startup → Primary Boot Sequence**. Read the information displayed on the right side of the screen.
3. Select the first boot device, second boot device, and so on.
4. Press Esc to return to the **Startup** menu. Then, select the devices for the **Automatic Boot Sequence** and **Error Boot Sequence**.
5. Press Esc to return to the Setup Utility program main menu. You might have to press Esc several times.
6. Press F10 to save and exit the Setup Utility program. See “Exiting from the Setup Utility program ” on page 39.

Exiting from the Setup Utility program

After you finish viewing or changing settings, press Esc to return to the Setup Utility program main menu. You might have to press Esc several times. Then, do one of the following:

- If you want to save the new settings, press F10 to save and exit the Setup Utility program.
- If you do not want to save the settings, select **Exit → Discard Changes and Exit**.
- If you want to return to the default settings, press F9 to load the default settings.

Chapter 7. Symptom-to-FRU Index

The Symptom-to-FRU index lists error symptoms and possible causes. The most likely cause is listed first. Always begin with Chapter 4 “General Checkout” on page 31. This index can also be used to help you decide which FRUs to have available when servicing a computer. If you are unable to correct the problem using this index, go to “Undetermined problems” on page 63.

Notes:

- If you have both an error message and an incorrect audio response, diagnose the error message first.
- If you cannot run the diagnostic tests or you get a diagnostic error code when running a test, but did receive a POST error message, diagnose the POST error message first.
- If you did not receive any error message, look for a description of your error symptoms in the first part of this index.

Hard disk drive boot error

A hard disk drive boot error (error codes 1962 and I999030X) can have the following causes.

Error	FRU/Action
The start-up drive is not in the boot sequence in configuration.	Check the configuration and ensure the start-up drive is in the boot sequence.
No operating system installed on the boot drive.	Install an operating system on the boot drive.
The boot sector on the start-up drive is corrupted.	The drive must be formatted, do the following: <ol style="list-style-type: none">1. Attempt to back-up the data on the failing hard disk drive.2. Using the operating systems programs, format the hard disk drive.
The drive is defective.	Replace the hard disk drive.

Power Supply Problems

If you suspect a power problem, use the following procedures.

Check/Verify	FRU/Action
Check the following for proper installation. <ul style="list-style-type: none">• Power cord• On/Off switch connector• On/Off switch power supply connector• System board power supply connectors• Microprocessor(s) connection	Reseat connectors
Check the power cord for continuity.	Power Cord
Check the power-on switch for continuity.	Power-on Switch

Diagnostic error codes

Refer to the following diagnostic error codes when using the diagnostic tests. See “Running tests” on page 35 for the specific type for information about the Diagnostic programs.

In the following index, X can represent any number.

Diagnostic Error Code	FRU/Action
000-000-XXX BIOS Test Passed	No action
000-002-XXX BIOS Timeout	1. Flash the system. See “Flash update procedures” on page 179 2. System board
000-024-XXX BIOS Addressing test failure	1. Flash the system. See “Flash update procedures” on page 179 2. System board
000-025-XXX BIOS Checksum Value error	1. Flash the system. See “Flash update procedures” on page 179 2. System board
000-026-XXX FLASH data error	1. Flash the system. See “Flash update procedures” on page 179 2. System board
000-027-XXX BIOS Configuration/Setup error	1. Run Setup 2. Flash the system. See “Flash update procedures” on page 179 3. System board
000-034-XXX BIOS Buffer Allocation failure	1. Reboot the system 2. Flash the system. See “Flash update procedures” on page 179 3. Run memory test 4. System board
000-035-XXX BIOS Reset Condition detected	1. Flash the system. See “Flash update procedures” on page 179 2. System board
000-036-XXX BIOS Register error	1. Flash the system. See “Flash update procedures” on page 179 2. System board
000-038-XXX BIOS Extension failure	1. Flash the system. See “Flash update procedures” on page 179 2. Adapter card 3. System board
000-039-XXX BIOS DMI data error	1. Flash the system. See “Flash update procedures” on page 179 2. System board
000-195-XXX BIOS Test aborted by user	Information only Re-start the test, if necessary
000-196-XXX BIOS test halt, error threshold exceeded	1. Press F3 to review the log file 2. Re-start the test to reset the log file

Diagnostic Error Code	FRU/Action
000-197-XXX BIOS test warning	<ol style="list-style-type: none"> 1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test
000-198-XXX BIOS test aborted	<ol style="list-style-type: none"> 1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 2. Flash the system and retest. See “Flash update procedures” on page 179 3. Go to “Undetermined problems” on page 63
000-199-XXX BIOS test failed, cause unknown	<ol style="list-style-type: none"> 1. Go to “Undetermined problems” on page 63 2. Flash the system and re-test 3. Replace component under function test
000-250-XXX BIOS APM failure	<ol style="list-style-type: none"> 1. Flash the system. See “Flash update procedures” on page 179 2. System board
000-270-XXX BIOS ACPI failure	<ol style="list-style-type: none"> 1. Flash the system. See “Flash update procedures” on page 179 2. System board
001-000-XXX System Test Passed	No action
001-00X-XXX System Error	System board
001-01X-XXX System Error	System board
001-024-XXX System Addressing test failure	System board
001-025-XXX System Checksum Value error	<ol style="list-style-type: none"> 1. Flash the system. See “Flash update procedures” on page 179 2. System board
001-026-XXX System FLASH data error	<ol style="list-style-type: none"> 1. Flash the system. See “Flash update procedures” on page 179 2. System board
001-027-XXX System Configuration/Setup error	<ol style="list-style-type: none"> 1. Run Setup 2. Flash the system. See “Flash update procedures” on page 179 3. System board
001-032-XXX System Device Controller failure	System board
001-034-XXX System Device Buffer Allocation failure	<ol style="list-style-type: none"> 1. Reboot the system 2. Flash the system. See “Flash update procedures” on page 179 3. Run memory test 4. System board
001-035-XXX System Device Reset condition detected	System board

Diagnostic Error Code	FRU/Action
001-036-XXX System Register error	System board
001-038-XXX System Extension failure	<ol style="list-style-type: none"> 1. Adapter card 2. System board
001-039-XXX System DMI data structure error	<ol style="list-style-type: none"> 1. Flash the system. See “Flash update procedures” on page 179 2. System board
001-040-XXX System IRQ failure	<ol style="list-style-type: none"> 1. Power-off/on system and re-test 2. System board
001-041-XXX System DMA failure	<ol style="list-style-type: none"> 1. Power-off/on system and re-test 2. System board
001-195-XXX System Test aborted by user	Information only Re-start the test, if necessary
001-196-XXX System test halt, error threshold exceeded	<ol style="list-style-type: none"> 1. Press F3 to review the log file 2. Re-start the test to reset the log file
001-197-XXX System test warning	<ol style="list-style-type: none"> 1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test
001-198-XXX System test aborted	<ol style="list-style-type: none"> 1. If a component is called out, make sure it is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 2. Flash the system and retest. See “Flash update procedures” on page 179 3. Go to “Undetermined problems” on page 63
001-199-XXX System test failed, cause unknown	<ol style="list-style-type: none"> 1. Go to “Undetermined problems” on page 63 2. Flash the system and re-test 3. Replace component under function test
001-250-XXX System ECC error	System board
001-254-XXX 001-255-XXX 001-256-XXX 001-257-XXX System DMA error	System board
001-260-XXX 001-264-XXX System IRQ error	System board
001-268-XXX System IRQ1 failure	<ol style="list-style-type: none"> 1. Device on IRQ1 2. System board
001-269-XXX System IRQ2 failure	<ol style="list-style-type: none"> 1. Device on IRQ2 2. System board
001-270-XXX System IRQ3 failure	<ol style="list-style-type: none"> 1. Device on IRQ3 2. System board
001-271-XXX System IRQ4 failure	<ol style="list-style-type: none"> 1. Device on IRQ4 2. System board

Diagnostic Error Code	FRU/Action
001-272-XXX System IRQ5 failure	1. Device on IRQ5 2. System board
001-273-XXX System IRQ6 (diskette drive) failure	1. Diskette Cable 2. Diskette drive 3. System board
001-274-XXX System IRQ7 failure	1. Device on IRQ7 2. System board
001-275-XXX System IRQ8 failure	1. Device on IRQ8 2. System board
001-276-XXX System IRQ9 failure	1. Device on IRQ9 2. System board
001-277-XXX System IRQ10 failure	1. Device on IRQ10 2. System board
001-278-XXX System IRQ11 failure	1. Device on IRQ11 2. System board
001-279-XXX System IRQ12 failure	1. Device on IRQ12 2. System board
001-280-XXX System IRQ13 failure	1. Device on IRQ13 2. System board
001-281-XXX System IRQ14 (hard disk drive) failure	1. Hard disk drive cable 2. Hard disk drive 3. System board
001-282-XXX System IRQ15 failure	1. Device on IRQ15 2. System board
001-286-XXX 001-287-XXX 001-288-XXX System Timer failure	System board
001-292-XXX System CMOS RAM error	1. Run Setup and re-test 2. System board
001-293-XXX System CMOS Battery	1. CMOS Battery 2. System board
001-298-XXX System RTC date/time update failure	1. Flash the system. See “Flash update procedures” on page 179 2. System board
001-299-XXX System RTC periodic interrupt failure	System board
001-300-XXX System RTC Alarm failure	System board
001-301-XXX System RTC Century byte error	1. Flash the system. See “Flash update procedures” on page 179 2. System board
005-000-XXX Video Test Passed	No action
005-00X-XXX Video error	1. Video card, if installed 2. System board

Diagnostic Error Code	FRU/Action
005-010-XXX 005-011-XXX 005-012-XXX 005-013-XXX Video Signal failure	<ol style="list-style-type: none"> 1. Video card, if installed 2. System board
005-016-XXX Video Simple Pattern test failure	<ol style="list-style-type: none"> 1. Video Ram 2. Video card, if installed 3. System board
005-024-XXX Video Addressing test failure	<ol style="list-style-type: none"> 1. Video card, if installed 2. System board
005-025-XXX Video Checksum Value error	<ol style="list-style-type: none"> 1. Video card, if installed 2. System board
005-027-XXX Video Configuration/Setup error	<ol style="list-style-type: none"> 1. Run Setup 2. Video drivers update 3. Video card, if installed 4. System board
005-031-XXX Video Device Cable failure	<ol style="list-style-type: none"> 1. Video cable 2. Monitor 3. Video card, if installed 4. System board
005-032-XXX Video Device Controller failure	<ol style="list-style-type: none"> 1. Video card, if installed 2. System board
005-036-XXX Video Register error	<ol style="list-style-type: none"> 1. Video card, if installed 2. System board
005-038-XXX System BIOS extension failure	<ol style="list-style-type: none"> 1. Video card, if installed 2. System board
005-040-XXX Video IRQ failure	<ol style="list-style-type: none"> 1. Video card, if installed 2. System board
005-195-XXX Video Test aborted by user	Information only Re-start the test, if necessary
005-196-XXX Video test halt, error threshold exceeded	<ol style="list-style-type: none"> 1. Press F3 to review the log file 2. Re-start the test to reset the log file
005-197-XXX Video test warning	<ol style="list-style-type: none"> 1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 2. Re-run test 3. Replace the component called out in warning statement 4. Replace the component under test
005-198-XXX Video test aborted	<ol style="list-style-type: none"> 1. If a component is called out, make sure it is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 2. Flash the system and re-test. See “Flash update procedures” on page 179 3. Go to “Undetermined problems” on page 63

Diagnostic Error Code	FRU/Action
005-199-XXX Video test failed, cause unknown	<ol style="list-style-type: none"> 1. Go to “Undetermined problems” on page 63 2. Flash the system and re-test. See “Flash update procedures” on page 179 3. Replace component under function test
005-2XX-XXX 005-3XX-XXX Video subsystem error	<ol style="list-style-type: none"> 1. Video card, if installed 2. System board
006-000-XXX Diskette interface Test Passed	No action
006-0XX-XXX Diskette interface error	<ol style="list-style-type: none"> 1. Diskette drive Cable 2. Diskette drive 3. System board
006-195-XXX Diskette interface Test aborted by user	Information only Re-start the test, if necessary
006-196-XXX Diskette interface test halt, error threshold exceeded	<ol style="list-style-type: none"> 1. Press F3 to review the log file 2. Re-start the test to reset the log file
006-197-XXX Diskette interface test warning	<ol style="list-style-type: none"> 1. If a component is called out, make sure it is connected and/or enabled 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test
006-198-XXX Diskette interface test aborted	<ol style="list-style-type: none"> 1. If a component is called out, make sure it is connected and/or enabled 2. Flash the system and re-test. See “Flash update procedures” on page 179 3. Go to “Undetermined problems” on page 63
006-199-XXX Diskette interface test failed, cause unknown	<ol style="list-style-type: none"> 1. Go to “Undetermined problems” on page 63 2. Flash the system and re-test 3. Replace component under function test
006-25X-XXX Diskette interface Error	<ol style="list-style-type: none"> 1. Diskette drive cable 2. Diskette drive 3. System board
011-000-XXX Serial port Interface Test Passed	No action
011-001-XXX Serial port Presence	<ol style="list-style-type: none"> 1. Remove external serial device, if present 2. Run setup, enable port 3. System board
011-002-XXX 011-003-XXX Serial port Timeout/Parity error	System board
011-013-XXX 011-014-XXX Serial port Control Signal/Loopback test failure	System board
011-015-XXX Serial port External Loopback failure	<ol style="list-style-type: none"> 1. Wrap plug 2. System board

Diagnostic Error Code	FRU/Action
011-027-XXX Serial port Configuration/Setup error	<ol style="list-style-type: none"> 1. Run Setup, enable port 2. Flash the system. See “Flash update procedures” on page 179 3. System board
011-03X-XXX 011-04X-XXX Serial port failure	System board
011-195-XXX Serial port Test aborted by user	Information only Re-start the test, if necessary
011-196-XXX Serial port test halt, error threshold exceeded	<ol style="list-style-type: none"> 1. Press F3 to review the log file 2. Re-start the test to reset the log file
011-197-XXX Serial port test warning	<ol style="list-style-type: none"> 1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test
011-198-XXX Serial port test aborted	<ol style="list-style-type: none"> 1. If a component is called out, make sure it is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 2. Flash the system and re-test. See “Flash update procedures” on page 179 3. Go to “Undetermined problems” on page 63
011-199-XXX Serial port test failed, cause unknown	<ol style="list-style-type: none"> 1. Go to “Undetermined problems” on page 63 2. Flash the system and re-test. See “Flash update procedures” on page 179 3. Replace component under function test
011-2XX-XXX Serial port signal failure	<ol style="list-style-type: none"> 1. External serial device 2. System board
014-000-XXX Parallel port Interface Test Passed	No action
014-001-XXX Parallel port Presence	<ol style="list-style-type: none"> 1. Remove external parallel device, if present 2. Run setup, enable port 3. System board
014-002-XXX 014-003-XXX Parallel port Timeout/Parity error	System board
014-013-XXX 014-014-XXX Parallel port Control Signal/Loopback test failure	System board
014-015-XXX Parallel port External Loopback failure	<ol style="list-style-type: none"> 1. Wrap plug 2. System board
014-027-XXX Parallel port Configuration/Setup error	<ol style="list-style-type: none"> 1. Run Setup, enable port 2. Flash the system. See “Flash update procedures” on page 179 3. System board
014-03X-XXX 014-04X-XXX Parallel port failure	System board
014-195-XXX Parallel port Test aborted by user	Information only Re-start the test, if necessary

Diagnostic Error Code	FRU/Action
014-196-XXX Parallel port test halt, error threshold exceeded	<ol style="list-style-type: none"> 1. Press F3 to review the log file 2. Re-start the test to reset the log file
014-197-XXX Parallel port test warning	<ol style="list-style-type: none"> 1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test
014-198-XXX Parallel port test aborted	<ol style="list-style-type: none"> 1. If a component is called out, make sure it is connected and/or enabled 2. Flash the system and re-test. See “Flash update procedures” on page 179 3. Go to “Undetermined problems” on page 63
014-199-XXX Parallel port test failed, cause unknown	<ol style="list-style-type: none"> 1. Go to “Undetermined problems” on page 63 2. Flash the system and re-test. See “Flash update procedures” on page 179 3. Replace component under function test
014-2XX-XXX 014-3XX-XXX Parallel port failure	<ol style="list-style-type: none"> 1. External parallel device 2. System board
015-000-XXX USB port Interface Test Passed	No action
015-001-XXX USB port Presence	<ol style="list-style-type: none"> 1. Remove USB device(s) and re-test 2. System board
015-002-XXX USB port Timeout	<ol style="list-style-type: none"> 1. Remove USB device(s) and re-test 2. System board
015-015-XXX USB port External Loopback failure	<ol style="list-style-type: none"> 1. Remove USB device(s) and re-test 2. System board
015-027-XXX USB port Configuration/Setup error	<ol style="list-style-type: none"> 1. Flash the system. See “Flash update procedures” on page 179 2. System board
015-032-XXX USB port Device Controller failure	System board
015-034-XXX USB port buffer allocation failure	<ol style="list-style-type: none"> 1. Reboot the system 2. Flash the system and re-test. See “Flash update procedures” on page 179 3. Run memory test 4. System board
015-035-XXX USB port Reset condition detected	<ol style="list-style-type: none"> 1. Remove USB device(s) and re-test 2. System board
015-036-XXX USB port Register error	System board
015-040-XXX USB port IRQ failure	<ol style="list-style-type: none"> 1. Run setup and check for conflicts 2. Flash the system. See “Flash update procedures” on page 179 3. System board

Diagnostic Error Code	FRU/Action
015-195-XXX USB port Test aborted by user	Information only Re-start the test, if necessary
015-196-XXX USB port test halt, error threshold exceeded	<ol style="list-style-type: none"> 1. Press F3 to review the log file 2. Re-start the test to reset the log file
015-197-XXX USB port test warning	<ol style="list-style-type: none"> 1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test
015-198-XXX USB port test aborted	<ol style="list-style-type: none"> 1. If a component is called out, make sure it is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 2. Flash the system and re-test. See “Flash update procedures” on page 179 3. Go to “Undetermined problems” on page 63
015-199-XXX USB port test failed, cause unknown	<ol style="list-style-type: none"> 1. Go to “Undetermined problems” on page 63 2. Flash the system and re-test. See “Flash update procedures” on page 179 3. Replace component under function test
018-000-XXX PCI Card Test Passed	No action
018-0XX-XXX PCI Card Failure	<ol style="list-style-type: none"> 1. Riser card, if installed 2. System board
018-195-XXX PCI Card Test aborted by user	<ol style="list-style-type: none"> 1. PCI card 2. Information only Re-start the test, if necessary
018-196-XXX PCI Card test halt, error threshold exceeded	<ol style="list-style-type: none"> 1. Press F3 to review the log file 2. Re-start the test to reset the log file
018-197-XXX PCI Card test warning	<ol style="list-style-type: none"> 1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test
018-198-XXX PCI Card test aborted	<ol style="list-style-type: none"> 1. If a component is called out, make sure it is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 2. Flash the system and re-test. See “Flash update procedures” on page 179 3. Go to “Undetermined problems” on page 63

Diagnostic Error Code	FRU/Action
018-199-XXX PCI Card test failed, cause unknown	<ol style="list-style-type: none"> 1. Go to “Undetermined problems” on page 63 2. Flash the system and re-test. See “Flash update procedures” on page 179 3. Replace component under function test
018-250-XXX PCI Card Services error	<ol style="list-style-type: none"> 1. PCI card 2. Riser card, if installed 3. System board
020-000-XXX PCI Interface Test Passed	No action
020-0XX-XXX PCI Interface error	<ol style="list-style-type: none"> 1. PCI card 2. Riser card, if installed 3. System board
020-195-XXX PCI Test aborted by user	Information only Re-start the test, if necessary
020-196-XXX PCI test halt, error threshold exceeded	<ol style="list-style-type: none"> 1. Press F3 to review the log file 2. Re-start the test to reset the log file
020-197-XXX PCI test warning	<ol style="list-style-type: none"> 1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test
020-198-XXX PCI test aborted	<ol style="list-style-type: none"> 1. If a component is called out, make sure it is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 2. Flash the system and re-test. See “Flash update procedures” on page 179 3. Go to “Undetermined problems” on page 63
020-199-XXX PCI test failed, cause unknown	<ol style="list-style-type: none"> 1. Go to “Undetermined problems” on page 63 2. Flash the system and re-test. See “Flash update procedures” on page 179 3. Replace component under function test
020-262-XXX PCI system error	<ol style="list-style-type: none"> 1. PCI card 2. Riser card, if installed 3. System board
025-000-XXX IDE interface Test Passed	No action
025-00X-XXX 025-01X-XXX IDE interface failure	<ol style="list-style-type: none"> 1. IDE signal cable 2. Check power supply voltages 3. Reseat IDE signal cable 4. IDE device 5. System board

Diagnostic Error Code	FRU/Action
025-027-XXX IDE interface Configuration/Setup error	<ol style="list-style-type: none"> 1. IDE signal cable 2. Flash the system. See “Flash update procedures” on page 179 3. Reseat IDE signal cable 4. IDE device 5. System board
025-02X-XXX 025-03X-XXX 025-04X-XXX IDE Interface failure	<ol style="list-style-type: none"> 1. IDE signal cable 2. Check power supply 3. Reseat IDE signal cable 4. IDE device 5. System board
025-195-XXX IDE interface Test aborted by user	Information only Re-start the test, if necessary
025-196-XXX IDE interface test halt, error threshold exceeded	<ol style="list-style-type: none"> 1. Press F3 to review the log file 2. Re-start the test to reset the log file
025-197-XXX IDE interface test warning	<ol style="list-style-type: none"> 1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test
025-198-XXX IDE interface test aborted	<ol style="list-style-type: none"> 1. If a component is called out, make sure it is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 2. Flash the system and re-test. See “Flash update procedures” on page 179 3. Go to “Undetermined problems” on page 63
025-199-XXX IDE interface test failed, cause unknown	<ol style="list-style-type: none"> 1. Go to “Undetermined problems” on page 63 2. Flash the system and re-test. See “Flash update procedures” on page 179 3. Replace component under function test
030-000-XXX SCSI interface Test Passed	No action
030-00X-XXX 030-01X-XXX SCSI interface failure	<ol style="list-style-type: none"> 1. SCSI signal cable 2. Check power supply 3. SCSI device 4. SCSI adapter card, if installed 5. System board
030-027-XXX SCSI interface Configuration/Setup error	<ol style="list-style-type: none"> 1. SCSI signal cable 2. Flash the system. See “Flash update procedures” on page 179 3. SCSI device 4. SCSI adapter card, if installed 5. System board

Diagnostic Error Code	FRU/Action
030-03X-XXX 030-04X-XXX SCSI interface error	<ol style="list-style-type: none"> 1. SCSI signal cable 2. Check power supply 3. SCSI device 4. SCSI adapter card, if installed 5. System board
030-195-XXX SCSI interface Test aborted by user	Information only Re-start the test, if necessary
030-196-XXX SCSI interface test halt, error threshold exceeded	<ol style="list-style-type: none"> 1. Press F3 to review the log file 2. Re-start the test to reset the log file
030-197-XXX SCSI interface test warning	<ol style="list-style-type: none"> 1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test
030-198-XXX SCSI interface test aborted	<ol style="list-style-type: none"> 1. If a component is called out, make sure it is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 2. Flash the system and re-test. See “Flash update procedures” on page 179 3. Go to “Undetermined problems” on page 63
030-199-XXX SCSI interface test failed, cause unknown	<ol style="list-style-type: none"> 1. Go to “Undetermined problems” on page 63 2. Flash the system and re-test. See “Flash update procedures” on page 179 3. Replace component under function test
035-000-XXX RAID interface Test Passed	No action
035-0XX-XXX RAID interface Failure	<ol style="list-style-type: none"> 1. RAID signal cable 2. RAID device 3. RAID adapter card, if installed 4. System board
035-195-XXX RAID interface Test aborted by user	Information only Re-start the test, if necessary
035-196-XXX RAID interface test halt, error threshold exceeded	<ol style="list-style-type: none"> 1. Press F3 to review the log file 2. Re-start the test to reset the log file
035-197-XXX RAID interface test warning	<ol style="list-style-type: none"> 1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test

Diagnostic Error Code	FRU/Action
035-198-XXX RAID interface test aborted	<ol style="list-style-type: none"> 1. If a component is called out, make sure it is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 2. Flash the system and re-test. See “Flash update procedures” on page 179 3. Go to “Undetermined problems” on page 63
035-199-XXX RAID interface test failed, cause unknown	<ol style="list-style-type: none"> 1. See “Undetermined problems” on page 63 2. Flash the system and re-test. See “Flash update procedures” on page 179 3. Replace component under function test
071-000-XXX Audio port Interface Test Passed	No action
071-00X-XXX 071-01X-XXX 071-02X-XXX Audio port error	<ol style="list-style-type: none"> 1. Run Setup 2. Flash the system. See “Flash update procedures” on page 179 3. System board
071-03X-XXX Audio port failure	<ol style="list-style-type: none"> 1. Speakers 2. Microphone 3. Audio card, if installed 4. System board
071-04X-XXX Audio port failure	<ol style="list-style-type: none"> 1. Run Setup 2. Audio card, if installed 3. System board
071-195-XXX Audio port Test aborted by user	Information only Re-start the test, if necessary
071-196-XXX Audio port test halt, error threshold exceeded	<ol style="list-style-type: none"> 1. Press F3 to review the log file 2. Re-start the test to reset the log file
071-197-XXX Audio port test warning	<ol style="list-style-type: none"> 1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test
071-198-XXX Audio port test aborted	<ol style="list-style-type: none"> 1. If a component is called out, make sure it is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 2. Flash the system and re-test. See “Flash update procedures” on page 179 3. Go to “Undetermined problems” on page 63
071-199-XXX Audio port test failed, cause unknown	<ol style="list-style-type: none"> 1. See “Undetermined problems” on page 63 2. Flash the system and re-test. See “Flash update procedures” on page 179 3. Replace component under function test

Diagnostic Error Code	FRU/Action
071-25X-XXX Audio port failure	<ol style="list-style-type: none"> Speakers Audio card, if installed System board
080-000-XXX Game Port interface Test Passed	No action
080-XXX-XXX Game Port interface Error	<ol style="list-style-type: none"> Remove the game port device and re-test the system
080-195-XXX Game Port interface Test aborted by user	Information only Re-start the test, if necessary
080-196-XXX Game Port interface test halt, error threshold exceeded	<ol style="list-style-type: none"> Press F3 to review the log file Re-start the test to reset the log file
080-197-XXX Game Port interface test warning	<ol style="list-style-type: none"> Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 Re-run test Replace the component that is called out in warning statement Replace the component under test
080-198-XXX Game Port interface test aborted	<ol style="list-style-type: none"> If a component is called out, make sure it is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 Flash the system and re-test. See “Flash update procedures” on page 179 Go to “Undetermined problems” on page 63
080-199-XXX Game Port interface test failed, cause unknown	<ol style="list-style-type: none"> See “Undetermined problems” on page 63 Flash the system and re-test. See “Flash update procedures” on page 179 Replace component under function test
086-000-XXX Mouse Port interface Test Passed	No action
086-001-XXX Mouse Port interface Presence	<ol style="list-style-type: none"> Mouse System board
086-032-XXX Mouse Port interface Device controller failure	<ol style="list-style-type: none"> Mouse System board
086-035-XXX Mouse Port interface Reset	<ol style="list-style-type: none"> Mouse System board
086-040-XXX Mouse Port interface IRQ failure	<ol style="list-style-type: none"> Run Setup Mouse System board
086-195-XXX Mouse Port interface Test aborted by user	Information only Re-start the test, if necessary
086-196-XXX Mouse Port interface test halt, error threshold exceeded	<ol style="list-style-type: none"> Press F3 to review the log file Re-start the test to reset the log file

Diagnostic Error Code	FRU/Action
086-197-XXX Mouse Port interface test warning	<ol style="list-style-type: none"> 1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test
086-198-XXX Mouse Port interface test aborted	<ol style="list-style-type: none"> 1. If a component is called out, make sure it is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 2. Flash the system and re-test. See “Flash update procedures” on page 179 3. Go to “Undetermined problems” on page 63
086-199-XXX Mouse Port interface test failed, cause unknown	<ol style="list-style-type: none"> 1. See “Undetermined problems” on page 63 2. Flash the system and re-test. See “Flash update procedures” on page 179 3. Replace component under function test
089-000-XXX Microprocessor Test Passed	No action
089-XXX-XXX Microprocessor failure	<ol style="list-style-type: none"> 1. Microprocessor(s) 2. System board
089-195-XXX Microprocessor Test aborted by user	Information only Re-start the test, if necessary
089-196-XXX Microprocessor test halt, error threshold exceeded	<ol style="list-style-type: none"> 1. Press F3 to review the log file 2. Re-start the test to reset the log file
089-197-XXX Microprocessor test warning	<ol style="list-style-type: none"> 1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test
089-198-XXX Microprocessor test aborted	<ol style="list-style-type: none"> 1. Flash the system. See “Flash update procedures” on page 179 2. Go to “Undetermined problems” on page 63
089-199-XXX Microprocessor test failed, cause unknown	<ol style="list-style-type: none"> 1. See “Undetermined problems” on page 63 2. Flash the system and re-test. See “Flash update procedures” on page 179 3. Replace component under function test
170-000-XXX Voltage Sensor(s) Test Passed	No action
170-0XX-XXX Voltage Sensor(s) failure	<ol style="list-style-type: none"> 1. Flash system 2. System board
170-195-XXX Voltage Sensor(s) Test aborted by user	Information only Re-start the test, if necessary

Diagnostic Error Code	FRU/Action
170-196-XXX Voltage Sensor(s) test halt, error threshold exceeded	<ol style="list-style-type: none"> 1. Press F3 to review the log file 2. Re-start the test to reset the log file
170-197-XXX Voltage Sensor(s) test warning	<ol style="list-style-type: none"> 1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test
170-198-XXX Voltage Sensor(s) test aborted	<ol style="list-style-type: none"> 1. If a component is called out, make sure it is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 2. Flash the system and re-test. See “Flash update procedures” on page 179 3. Go to “Undetermined problems” on page 63
170-199-XXX Voltage Sensor(s) test failed, cause unknown	<ol style="list-style-type: none"> 1. See “Undetermined problems” on page 63 2. Flash the system and re-test. See “Flash update procedures” on page 179 3. Replace component under function test
170-250-XXX 170-251-XXX Voltage Sensor(s) Voltage limit error	<ol style="list-style-type: none"> 1. Power supply 2. System board
170-254-XXX Voltage Sensor(s) Voltage Regulator Module error	<ol style="list-style-type: none"> 1. Voltage Regulator Module (VRM) 2. Microprocessor 3. System board
175-000-XXX Thermal Sensor(s) Test Passed	No action
175-0XX-XXX Thermal Sensor(s) failure	<ol style="list-style-type: none"> 1. Flash system 2. System board
175-195-XXX Thermal Sensor(s) Test aborted by user	Information only Re-start the test, if necessary
175-196-XXX Thermal Sensor(s) test halt, error threshold exceeded	<ol style="list-style-type: none"> 1. Press F3 to review the log file 2. Re-start the test to reset the log file
175-197-XXX Thermal Sensor(s) test warning	<ol style="list-style-type: none"> 1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test
175-198-XXX Thermal Sensor(s) test aborted	<ol style="list-style-type: none"> 1. If a component is called out, make sure it is connected and/or enabled 2. Flash the system and re-test. See “Flash update procedures” on page 179 3. Go to “Undetermined problems” on page 63

Diagnostic Error Code	FRU/Action
175-199-XXX Thermal Sensor(s) test failed, cause unknown	<ol style="list-style-type: none"> 1. See “Undetermined problems” on page 63 2. Flash the system and re-test. See “Flash update procedures” on page 179 3. Replace component under function test
175-250-XXX 175-251-XXX Thermal Sensor(s) limit error	<ol style="list-style-type: none"> 1. Check fans 2. Check Power supply voltages 3. Microprocessor 4. System board
185-000-XXX Asset Security Test Passed	No action
185-XXX-XXX Asset Security failure	<ol style="list-style-type: none"> 1. Flash system 2. System board
185-278-XXX Asset Security Chassis Intrusion	<ol style="list-style-type: none"> 1. Assure Asset Security Enabled 2. C2 Cover Switch 3. System board
201-000-XXX System Memory Test Passed	No action
201-XXX-XXX System Memory error	<ol style="list-style-type: none"> 1. Replace the memory module called out by the test 2. System board
202-000-XXX System Cache Test Passed	No action
202-XXX-XXX System Cache error	<ol style="list-style-type: none"> 1. Cache, if removable 2. System board 3. Microprocessor
206-000-XXX Diskette Drive Test Passed	No action
206-XXX-XXX Diskette Drive error	<ol style="list-style-type: none"> 1. Diskette Drive Cable 2. Check power supply voltages 3. Diskette drive 4. System board
215-000-XXX CD-ROM Drive Test Passed	No action
215-XXX-XXX CD-ROM Drive error	<ol style="list-style-type: none"> 1. CD-ROM Drive Cable 2. Check power supply voltages 3. CD-ROM drive 4. System board
217-000-XXX Hard Disk Drive Test Passed	No action
217-25X-XXX 217-26X-XXX Hard Disk Drive (IDE) error	<ol style="list-style-type: none"> 1. Hard Disk Drive Cable 2. Check power supply voltages 3. Reseat the hard disk drive cable 4. Hard Disk drive (IDE) 5. System board

Diagnostic Error Code	FRU/Action
217-28X-XXX 217-29X-XXX Hard Disk Drive (SCSI) error	<ol style="list-style-type: none"> 1. Hard Disk Drive Cable 2. Check power supply voltages 3. Reseat the hard disk drive cable 4. Hard Disk drive (SCSI) 5. SCSI adapter card 6. System board
220-000-XXX Hi-Capacity Cartridge Drive Test Passed	No action
220-XXX-XXX Hi-Capacity Cartridge Drive error	1. Remove the Hi-Capacity Cartridge Drive and re-test the system
301-XXX-XXX Keyboard error	<ol style="list-style-type: none"> 1. Keyboard 2. Check and test mouse 3. System board
301-000-XXX Keyboard Test Passed	No action
302-000-XXX Mouse Test Passed	No action
302-XXX-XXX Mouse error	<ol style="list-style-type: none"> 1. Mouse 2. Check and test Keyboard 3. System board
303-000-XXX Joystick Test Passed	No action
303-XXX-XXX Joystick error	Remove the Joystick and re-test the system
305-000-XXX Monitor DDC Test Passed	No action
305-250-XXX Monitor DDC self test failure	<ol style="list-style-type: none"> 1. Run Setup to enable DDC 2. Cable 3. Monitor 4. Video card 5. System board
415-000-XXX Modem Test Passed	No action
415-XXX-XXX Modem error	Remove the Modem and re-test the system

Beep symptoms

Beep symptoms are tones or a series of tones separated by pauses (intervals without sound) during POST.

The following tables describes beep symptoms.

Beep Symptom	FRU/Action
2 short beeps CMOS setting error	<p>Perform the following actions in order.</p> <ol style="list-style-type: none"> 1. Start the Setup Utility program and press F10 to Save and exit. See Chapter 6 "Diagnostics, Test and Recovery Information" on page 37. 2. Start the Setup Utility program and press F9 to load defaults and then press F10 to Save and exit.

Beep Symptom	FRU/Action
	3. Perform a Boot block recovery. See “Updating (flashing) BIOS from your operating system” on page 180.
1 long and 2 short beeps Monitor or video adapter card error	Perform the following actions in order. <ol style="list-style-type: none"> 1. Make sure the monitor is properly connected to the computer. 2. Replace the video adapter card (if present). 3. Replace the system board.
1 long and 3 short beeps Keyboard error	Perform the following actions in order. <ol style="list-style-type: none"> 1. Make sure the keyboard is properly connected to the keyboard connector. 2. Replace the keyboard. 3. Replace the system board.
1 long and 9 short beeps BIOS ROM error	Perform the following actions in order. <ol style="list-style-type: none"> 1. Start the Setup Utility program and press F9 to load defaults and then press F10 to Save and exit. See Chapter 6 “Diagnostics, Test and Recovery Information” on page 37. 2. Perform a Boot block recovery. See “Updating (flashing) BIOS from your operating system” on page 180. 3. Replace the system board.
2 short and 1 long beeps DRAM memory error	Perform the following actions in order. <ol style="list-style-type: none"> 1. Make sure the memory module(s) are properly seated in the connector(s). 2. Replace the memory module(s). 3. Replace the system board.

POST error codes

Each time you power-on the system, it performs a series of tests that check the operation of the system and some options. This series of tests is called the *Power-On Self-Test*, or *POST*. POST does the following operations.

- Checks some basic system-board operations
- Checks the memory operation
- Starts the video operation
- Verifies that the boot drive is working

If the POST detects a problem, an error message appears on the screen. A single problem can cause several error messages to appear. When you correct the cause of the first error message, the other error messages probably will not appear on the screen the next time you turn on the system.

POST Error Message	Description/Action
CMOS battery failed	The CMOS battery is no longer functional. Replace the battery.
CMOS checksum error - defaults loaded	Checksum of CMOS is incorrect. The computer loads the default configuration settings. This error might indicate that CMOS has become corrupt due to a weak CMOS battery.
CPU at nnnn	nnnn is the running speed of the microprocessor.
Press Esc to skip memory test	Pressing Esc skips the full memory test
HARD DISK INSTALL FAILURE	Cannot find or initialize the hard disk drive controller or the drive. Make sure the hard disk drive is correctly installed. If no hard disk drives are installed, make sure the hard disk drive selection in Setup is set to NONE.
Keyboard error or no keyboard present	Cannot initialize the keyboard. Make sure the keyboard is properly connected to the computer and that no keys are held pressed during POST. To purposely configure the computer without a keyboard: <ol style="list-style-type: none"> 1. Start the Setup Utility program. See "Starting the Setup Utility program" on page 37. 2. Select Startup → Keyboardless Operation → Enabled.
Memory Test:	This message displays during a full memory test, counting down the memory areas being tested.
Memory test fail	If POST detects an error during memory testing, additional information appears. This information gives specifics about the type and location of the memory error.
Press TAB to show POST screen	Pressing the TAB key permits the user to toggle between the default POST display screen and a custom POST display screen.
Error: Non-System disk or disk error Replace and press any key when ready	The BIOS was unable to find a suitable boot device. Make sure the boot drive is properly connected to the computer. Make sure you have bootable media.

Miscellaneous error messages

Message/Symptom	FRU/Action
Changing display colors	Display/Monitor
Computer will <i>not</i> power-off. See "Hard disk drive boot error" on page 41.	<ol style="list-style-type: none"> 1. Power Switch 2. System Board 3. Riser card, if installed

Message/Symptom	FRU/Action
Computer will <i>not</i> RPL from server	<ol style="list-style-type: none"> 1. Ensure that network is in startup sequence as first device or first device after diskette 2. Ensure that network adapter is enabled for RPL 3. Network adapter (Advise network administrator of new MAC address)
Computer will <i>not</i> perform a Wake On LAN® (if applicable)	<ol style="list-style-type: none"> 1. Check power supply and signal cable connections to network adapter 2. Ensure that the operating system settings are set to enable Wake on LAN® 3. Ensure Wake On LAN feature is enabled in Setup/Configuration (see "Starting the Setup Utility program" on page 37) 4. Ensure network administrator is using correct MAC address 5. Ensure no interrupt or I/O address conflicts 6. Network adapter (advise network administrator of new MAC address)
Dead computer. See "Hard disk drive boot error" on page 41.	<ol style="list-style-type: none"> 1. Power Supply 2. System Board
Diskette drive in-use light remains on or does not light when drive is active.	<ol style="list-style-type: none"> 1. Diskette Drive 2. System Board 3. Diskette Drive Cable
Flashing cursor with an otherwise blank display.	<ol style="list-style-type: none"> 1. System Board 2. Primary Hard Disk Drive 3. Hard Disk Drive Cable
Incorrect memory size during POST	<ol style="list-style-type: none"> 1. Run the Memory tests 2. Memory Module 3. System Board
"Insert a Diskette" icon appears with a known-good diagnostics diskette in the first 3.5-inch diskette drive.	<ol style="list-style-type: none"> 1. System Board 2. Diskette Drive Cable 3. Network Adapter
Intensity or color varies from left to right of characters and color bars	<ol style="list-style-type: none"> 1. Display 2. Video adapter (if present) 3. System Board
No power or fan not running	<ol style="list-style-type: none"> 1. See "Hard disk drive boot error" on page 41.
Non-system disk or disk error-type message with a known-good diagnostic diskette.	<ol style="list-style-type: none"> 1. Diskette Drive 2. System Board 3. Diskette Drive Cable
Other display symptoms not listed above (including blank or illegible display)	<ol style="list-style-type: none"> 1. Display 2. System Board
Power-on indicator or hard disk drive in-use light not on, but computer works correctly	<ol style="list-style-type: none"> 1. Power switch/LED assembly 2. System Board
Printer problems	<ol style="list-style-type: none"> 1. Printer 2. System Board

Message/Symptom	FRU/Action
Program loads from the hard disk with a known-good diagnostics diskette in the first 3.5-inch diskette drive	<ol style="list-style-type: none"> 1. Run Setup and check Startup sequence. 2. Diskette Drive 3. Diskette Drive Cable 4. System Board 5. Power Supply
RPL computer cannot access programs from its own hard disk.	<ol style="list-style-type: none"> 1. If network administrator is using LCCM Hybrid RPL, check startup sequence: <ol style="list-style-type: none"> a. First device - network b. Second device - hard disk 2. Hard disk drive
RPL computer does not RPL from server	<ol style="list-style-type: none"> 1. Check startup sequence 2. Check the network adapter LED status
Serial or parallel port device failure (system board port)	<ol style="list-style-type: none"> 1. External Device Self-Test OK? 2. External Device 3. Cable 4. System Board
Serial or parallel port device failure (adapter port)	<ol style="list-style-type: none"> 1. External Device Self-Test OK? 2. External Device 3. Cable 4. Alternate Adapter 5. System Board
Some or all keys on the keyboard do not work	<ol style="list-style-type: none"> 1. Keyboard 2. Keyboard Cable 3. System Board

Undetermined problems

If the diagnostic tests did not diagnose the failure or if the computer is inoperative, use the information in this section.

If the power supplies are working correctly, do the following:

1. Power-off the computer.
2. If this computer has a parallel ATA hard disk drive, make sure that the hard disk drive is jumpered as a master and the optical drive is jumpered as a slave.
3. Remove or disconnect the following components (if installed) one at a time.
 - a. External devices (modem, printer, or mouse)
 - b. Any adapters
 - c. Memory modules
 - d. Extended video memory
 - e. External Cache
 - f. External Cache RAM
 - g. Hard disk drive
 - h. Diskette drive

4. Turn on the computer to retest the system.
5. Repeat steps 1 through 3 until you find the failing device or adapter.

If all devices and adapters have been removed, and the problem continues, replace the system board.

If the problem is solved when you remove an adapter from the computer but the problem recurs when you reinstall the same adapter, suspect the adapter.

If the computer passes all the system tests, suspect a network cabling problem that is external to the computer.

Chapter 8. Replacing FRUs

Important

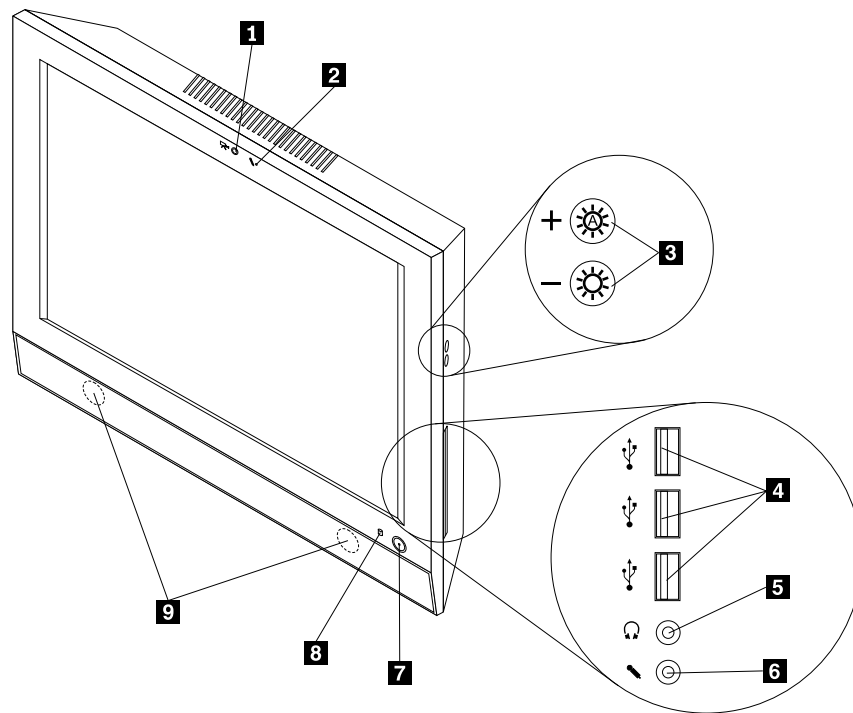
Before you replace any FRU, read Chapter 2 “Safety information” on page 3. These precautions and guidelines will help you work safely.

FRU replacements are to be done by trained service technicians only.

This chapter does not contain a removal and replacement procedure for all FRUs. Only the major FRUs are documented.

Locating controls and connectors on the front of your computer

The following illustration shows the locations of the controls and connectors on the front of your computer.



1 Integrated camera (available in some models)

2 Integrated microphone

3 Brightness controls

4 USB connectors (3)

5 Headphone connector

6 Microphone connector

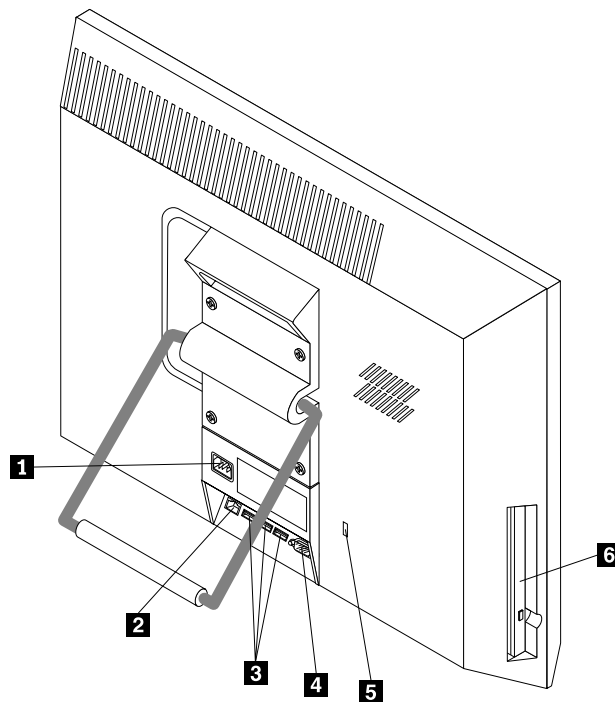
7 Power switch

8 Power indicator light-emitting diode (LED)

9 Internal speakers (2)

Rear connectors

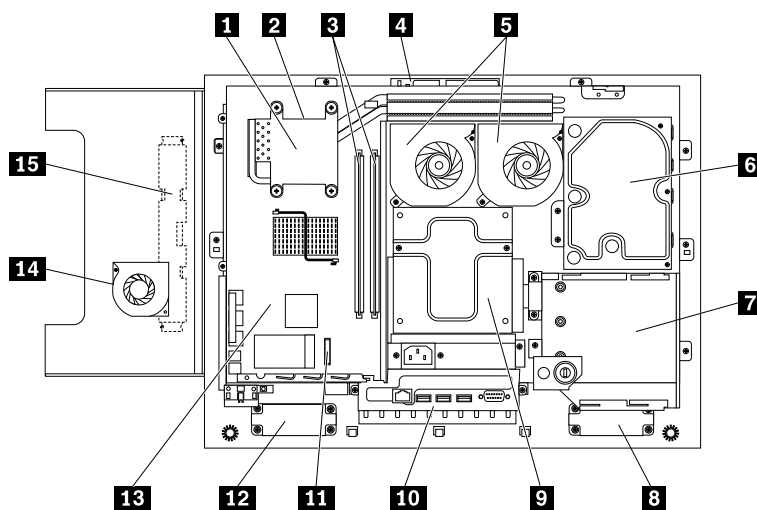
The following illustration shows the locations of the connectors on the rear of the computer.



- | | | | |
|----------|-------------------------|----------|----------------------------|
| 1 | Power cord connector | 4 | Serial port |
| 2 | Ethernet connector | 5 | Integrated cable lock slot |
| 3 | Rear USB connectors (3) | 6 | Optical drive |

FRU locations

The following illustration shows the locations of the FRUs.

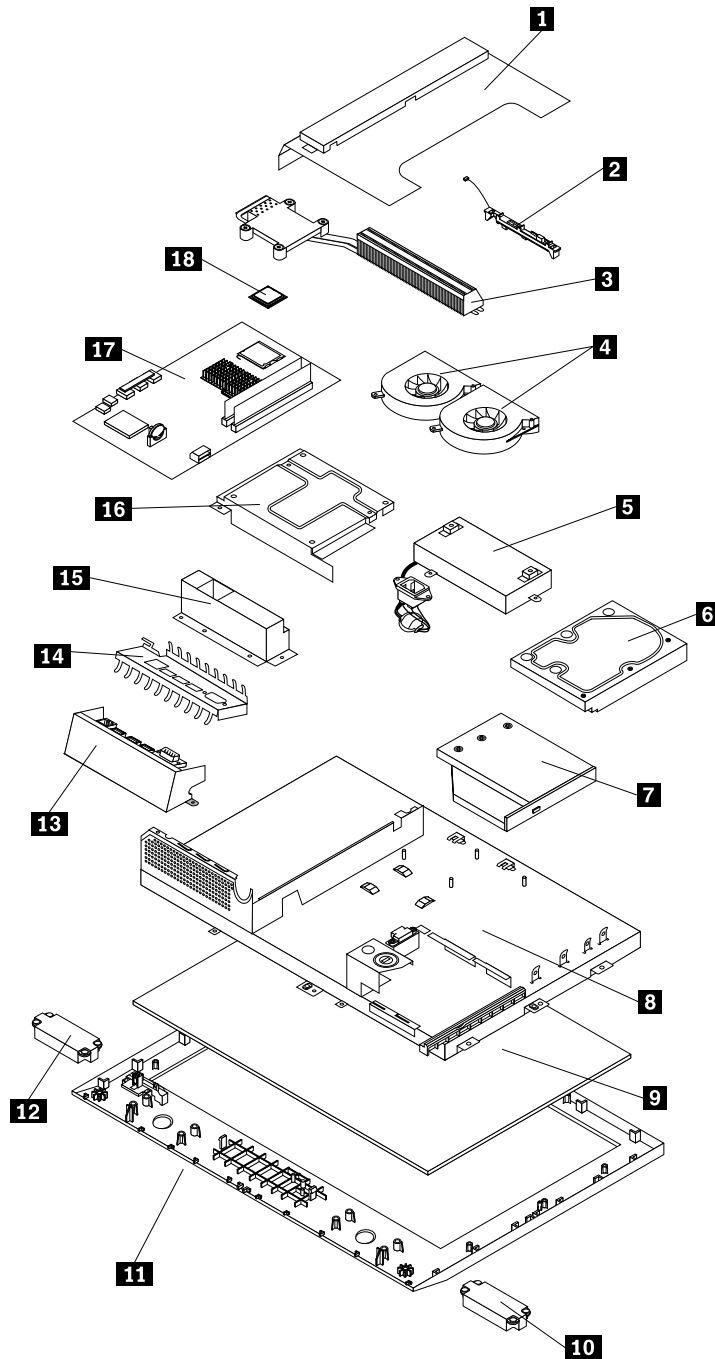


- | | | | |
|----------|--------------------|-----------|-------------------|
| 1 | Heat sink assembly | 9 | Power supply |
| 2 | Microprocessor | 10 | Rear I/O assembly |
| 3 | Memory modules (2) | 11 | Battery |
| 4 | Integrated webcam | 12 | Internal speaker |

- | | | | |
|----------|-----------------------------|-----------|--------------|
| 5 | Microprocessor fan assembly | 13 | System board |
| 6 | Hard disk drive | 14 | System fan |
| 7 | Optical drive | 15 | Inverter |
| 8 | Internal speaker | | |

Major components of the computer

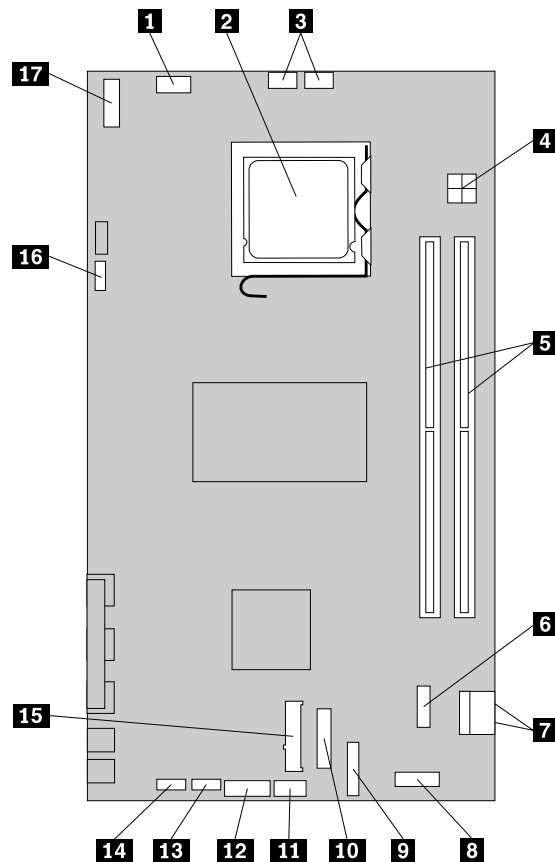
The following illustration shows the major components of the computer.



- | | | | |
|----------|-----------------------------|-----------|----------------------------|
| 1 | System board shielding | 10 | Internal speaker |
| 2 | Integrated webcam | 11 | Front bezel |
| 3 | Heat sink assembly | 12 | Internal speaker |
| 4 | Microprocessor fan assembly | 13 | Rear I/O assembly |
| 5 | Power supply assembly | 14 | Rear I/O shielding |
| 6 | Hard disk drive | 15 | Power connector bracket |
| 7 | Optical drive | 16 | Power supply assembly cage |
| 8 | Main bracket | 17 | System board |
| 9 | LCD panel | 18 | Microprocessor |

System board connectors

The following illustration shows the locations of the system board connectors.



- | | | | |
|----------|----------------------------------------------------|-----------|----------------------------|
| 1 | Inverter | 10 | Rear USB assembly - 40 pin |
| 2 | Microprocessor | 11 | Internal USB assembly |
| 3 | Microprocessor fan assembly | 12 | Debug pin |
| 4 | Power supply assembly | 13 | Power switch assembly |
| 5 | Memory modules (2) | 14 | Internal speakers |
| 6 | Power cables for hard disk drive and optical drive | 15 | Mini PCI Express |

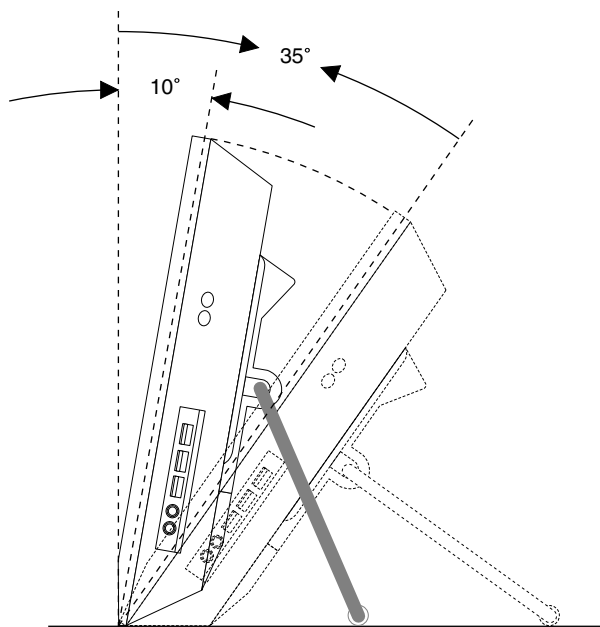
- | | | | |
|----------|---------------------------------------------------|-----------|-------------------|
| 7 | Data cables for hard disk drive and optical drive | 16 | Integrated webcam |
| 8 | Rear I/O assembly - 30 pin | 17 | LCD panel |
| 9 | Battery | | |

Adjusting the computer stand

Your computer comes with a stand that you can use to position the computer. Pull the stand open and adjust the position of the computer at an angle of 10° to 35° as shown in the following illustration.

CAUTION:

Make sure the angle is at least 10° from the vertical; otherwise, the computer might be unstable and fall over.



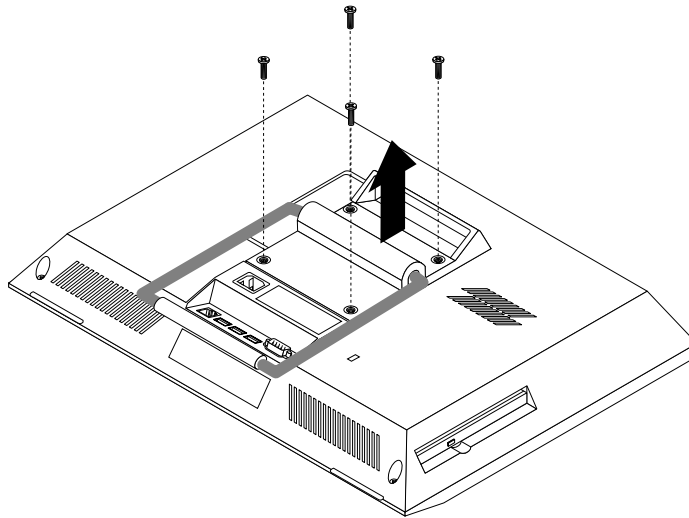
Your computer also supports UL (Underwriters Laboratories) certified 100 mm × 100 mm (3.94 inches × 3.94 inches) wall mounts. For proper mounting, use four screws of the following specifications: Diameter × Pitch × Length: 4 mm × 0.7 mm × 10 mm (0.16 inch × 0.03 inch × 0.39 inch)

Removing the computer stand

This section provides instructions on how to remove the computer stand.

To remove the computer stand, do the following:

1. Turn off the computer.
2. Disconnect all cables, power cords, and external options from your computer. See “Rear connectors” on page 65.
3. Place a soft, clean towel or cloth on the desk or surface. Hold the sides of your computer and gently lay it down so that the screen is against the surface and the cover is facing up.
4. Use a screwdriver to remove the four screws. Keep the four screws, and put them aside. You will need them when installing the computer stand.



5. Remove the computer stand off the computer and put it in a safe place.

Removing the computer cover

CAUTION:



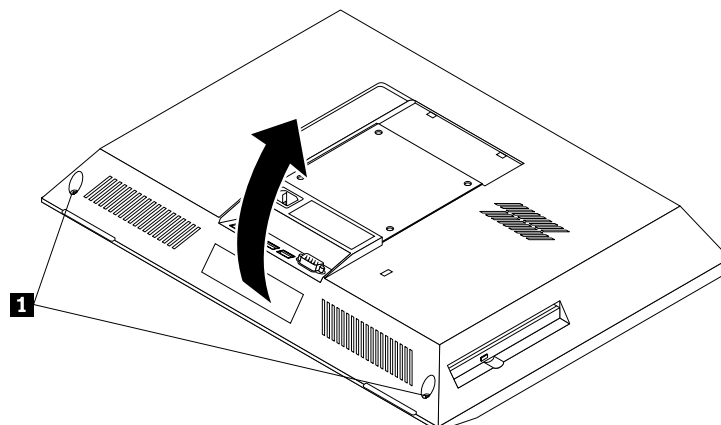
The microprocessor and heat sink assembly might be very hot. Turn off the computer and wait three to five minutes to let the computer cool before opening the computer cover.

This section provides instructions on how to remove the computer cover.

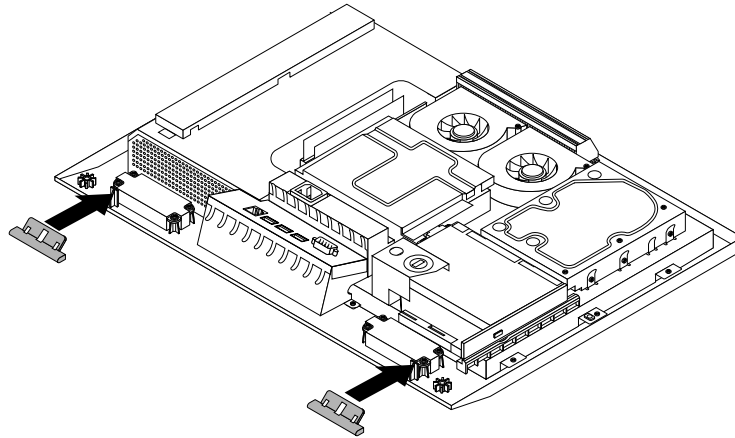
To remove the computer cover, do the following:

1. Turn off the computer.
2. Disconnect all cables, power cords, and external options from your computer. See “Rear connectors” on page 65.
3. Place a soft, clean towel or cloth on the desk or surface. Hold the sides of your computer and gently lay it down so that the screen is against the surface and the cover is facing up.
4. Remove the computer stand. See “Removing the computer stand” on page 69.
5. Use a screwdriver to loosen the two captive screws **1** near the bottom of the computer by turning them counterclockwise. You may hear the computer cover rattling when you turn the screwdriver.

Note: The two screws are captive; they are part of the computer cover and cannot be removed.



6. Tilt the computer cover up by raising one end of the cover first and lift the cover off the computer. Be sure to keep the two rubber tabs on the edge and set them aside. You will need them to install the computer cover.



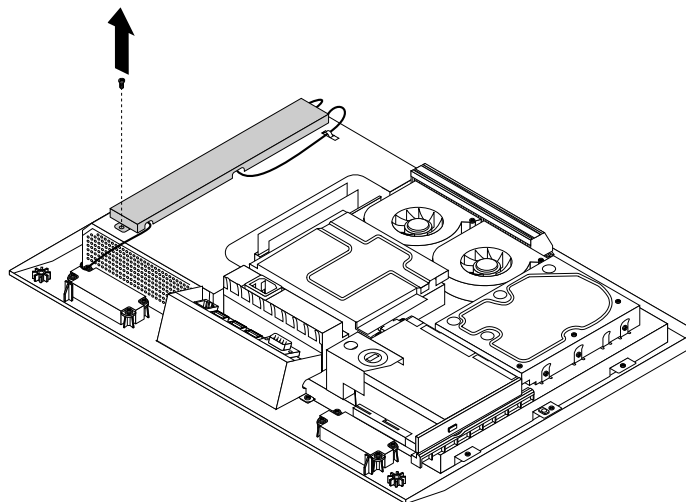
Opening and closing the system board shielding

This section provides instructions on how to open and close the system board shielding.

Opening the system board shielding

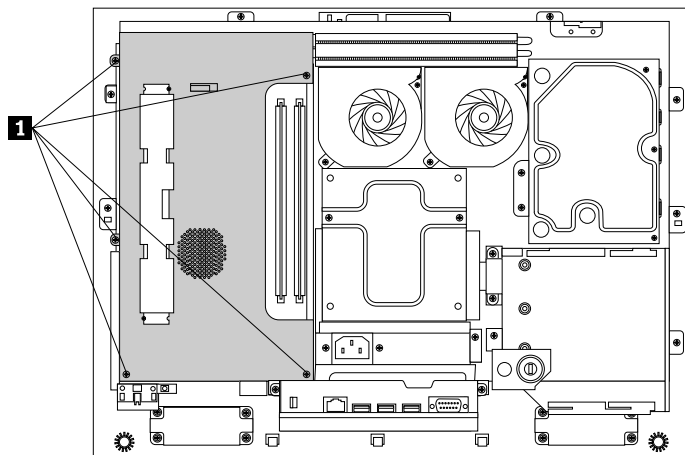
To open the system board shielding, do the following:

1. Turn off the computer.
2. Disconnect all cables, power cords, and external options from your computer. See “Rear connectors” on page 65.
3. Place a soft, clean towel or cloth on the desk or surface. Hold the sides of your computer and gently lay it down so that the screen is against the surface and the cover is facing up.
4. Remove the computer cover. See “Removing the computer cover” on page 70.
5. Remove the rear I/O shielding. See “Removing the rear I/O shielding” on page 73.
6. Remove the inverter shielding by removing the screw that secures the inverter shielding to the system board shielding.



7. Disconnect the three inverter cables to gain access to the system board shielding.

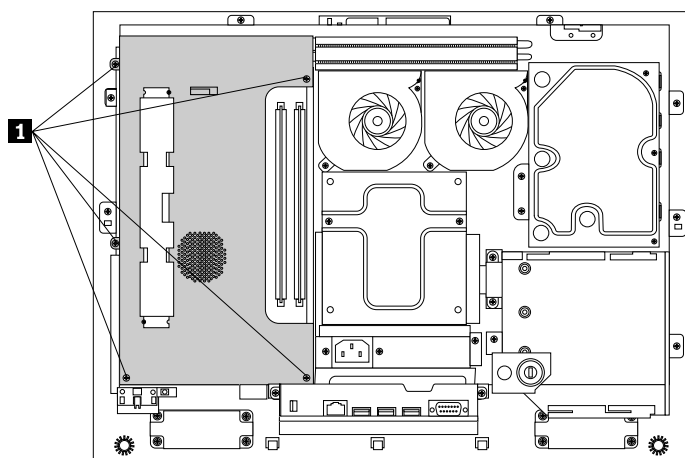
8. Open the system board shielding by removing the five screws **1** that secure the system board shielding to the main bracket.



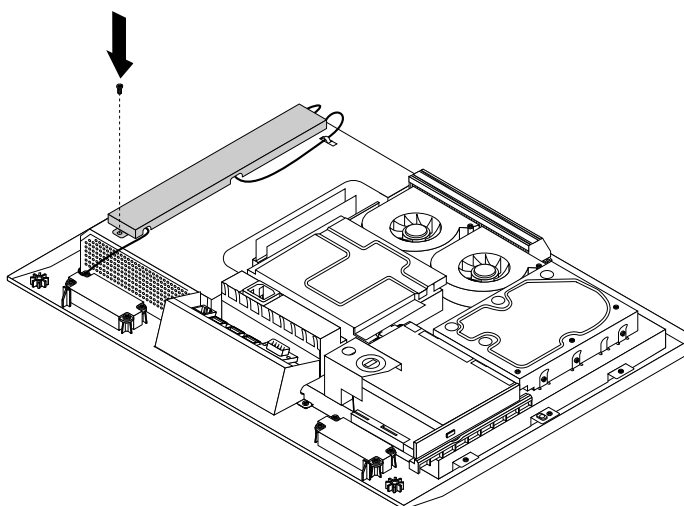
Closing the system board shielding

To close the system board shielding, do the following:

1. Close the system board shielding by installing the five screws **1** that secure the system board shielding to the main bracket.



2. Reconnect the three cables to the inverter.
3. Install the inverter shielding that was removed by inserting one end into the slots and reinstalling the screw.



4. Install the rear I/O shielding. See “Installing the rear I/O shielding” on page 74.
5. Go to “Completing the FRU installation” on page 108.

Replacing the rear I/O shielding

Attention

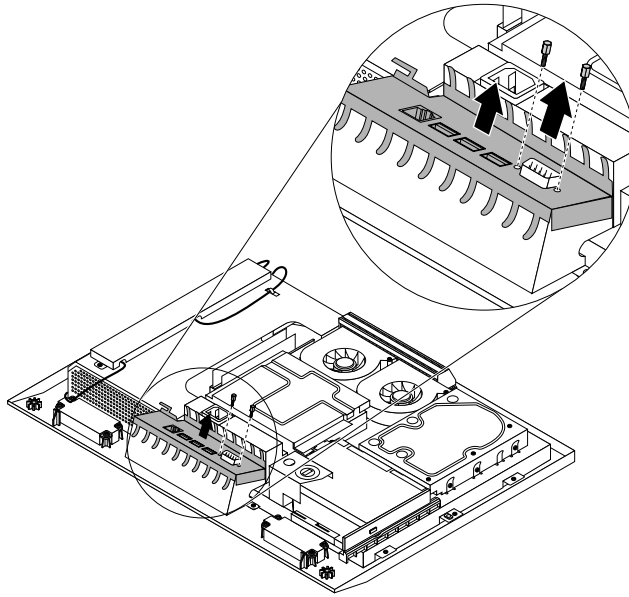
Do not open your computer or attempt any repair before reading and understanding the “Important safety information” in the *ThinkCentre Safety and Warranty Guide* that came with your computer. To obtain a copy of the *ThinkCentre Safety and Warranty Guide*, go to:
<http://www.lenovo.com/support>

This section provides instructions on how to replace the rear I/O shielding.

Removing the rear I/O shielding

To remove the rear I/O shielding, do the following:

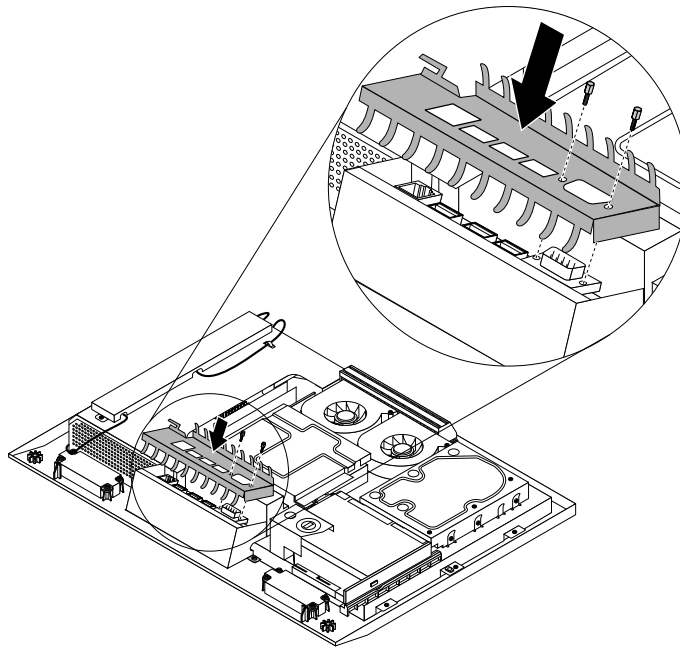
1. Turn off the computer.
2. Disconnect all cables, power cords, and external options from your computer. See “Rear connectors” on page 65.
3. Place a soft, clean towel or cloth on the desk or surface. Hold the sides of your computer and gently lay it down so that the screen is against the surface and the cover is facing up.
4. Remove the computer cover. See “Removing the computer cover” on page 70.
5. Locate the rear I/O assembly on the system board. See “System board connectors” on page 68.
6. Remove the two screws that secure the rear I/O shielding to the rear I/O assembly. Carefully remove the rear I/O shielding from the rear I/O assembly.



Installing the rear I/O shielding

To install the rear I/O shielding, do the following:

1. Replace the rear I/O shielding over the rear I/O assembly and make sure the connectors on the rear I/O assembly are aligned with the holes in the rear I/O shielding.
2. Install the two screws that attach the rear I/O shielding to the rear I/O assembly.



3. Go to “Completing the FRU installation” on page 108.

Replacing the hard disk drive

Attention

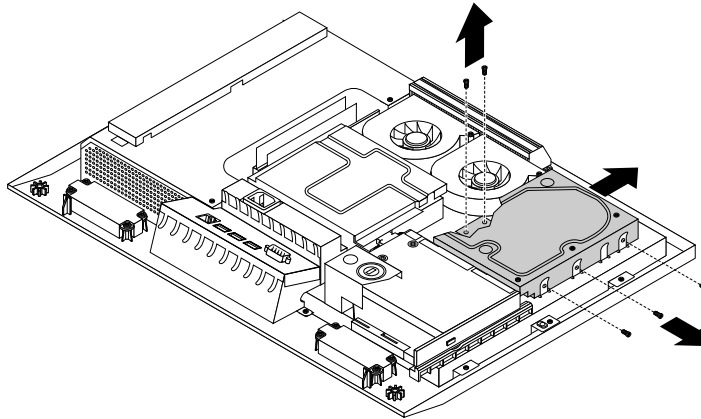
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<http://www.lenovo.com/support>

This section provides instructions on how to replace the hard disk drive.

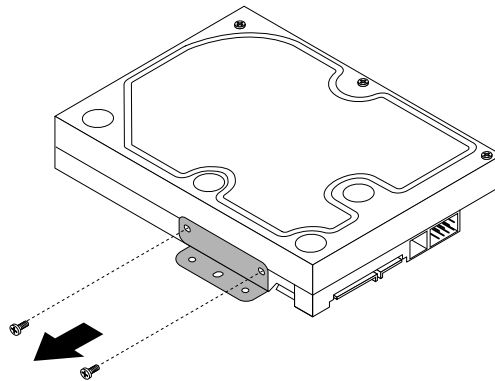
Removing the hard disk drive

To remove the hard disk drive, do the following:

1. Turn off the computer.
2. Disconnect all cables, power cords, and external options from your computer. See “Rear connectors” on page 65.
3. Place a soft, clean towel or cloth on the desk or surface. Hold the sides of your computer and gently lay it down so that the screen is against the surface and the cover is facing up.
4. Remove the computer cover. See “Removing the computer cover” on page 70.
5. Locate the hard disk drive. See “FRU locations” on page 66.
6. Remove the five screws, slide the hard disk drive a little bit forward, and disconnect the cable from the hard disk drive. Then, remove the hard disk drive from the chassis.



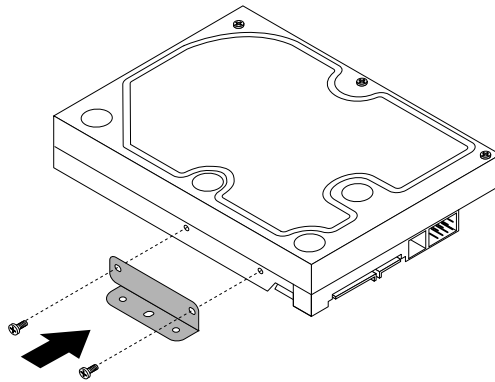
7. Remove the retention clip from the hard disk drive by removing the two screws as shown in the following illustration. Save the retention clip to use when you install the replacement hard disk drive.



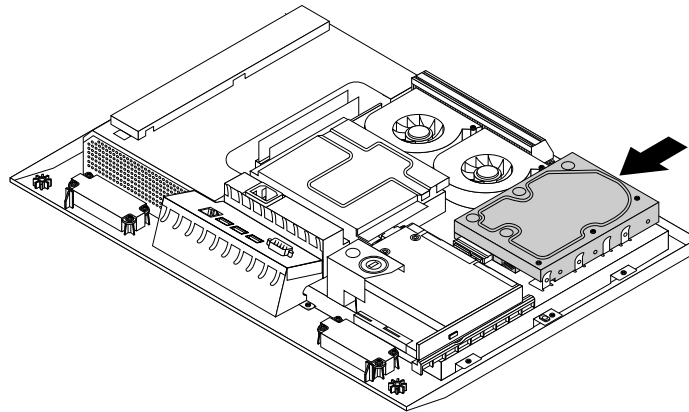
Installing a hard disk drive

To install a hard disk drive, do the following:

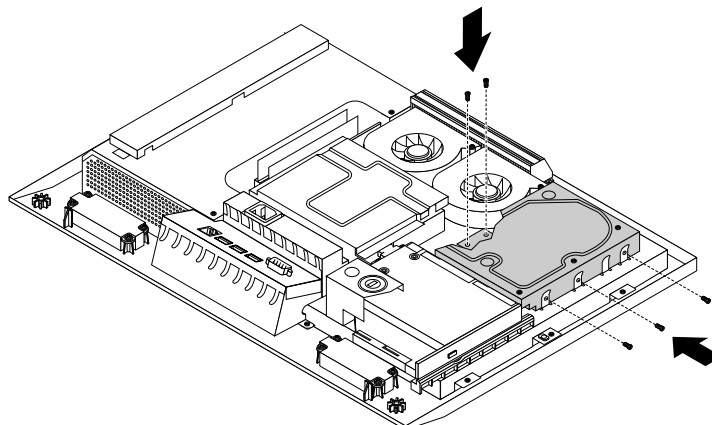
1. Turn off the computer.
2. Disconnect all cables, power cords, and external options from your computer. See “Rear connectors” on page 65.
3. Place a soft, clean towel or cloth on the desk or surface. Hold the sides of your computer and gently lay it down so that the screen is against the surface and the cover is facing up.
4. Remove the computer cover. See “Removing the computer cover” on page 70.
5. Attach the retention clip that you removed from the previous hard disk drive to the side of the new hard disk drive by installing the two screws to the alignment pins.



6. Align the hard disk drive in the drive bay and connect the hard disk drive to the cable connector.
7. Gently push the hard disk drive assembly into the bay until the hard disk drive stops.



8. Install the five screws to secure the hard disk drive to the chassis.



9. Go to “Completing the FRU installation” on page 108.

Replacing the optical drive

Attention

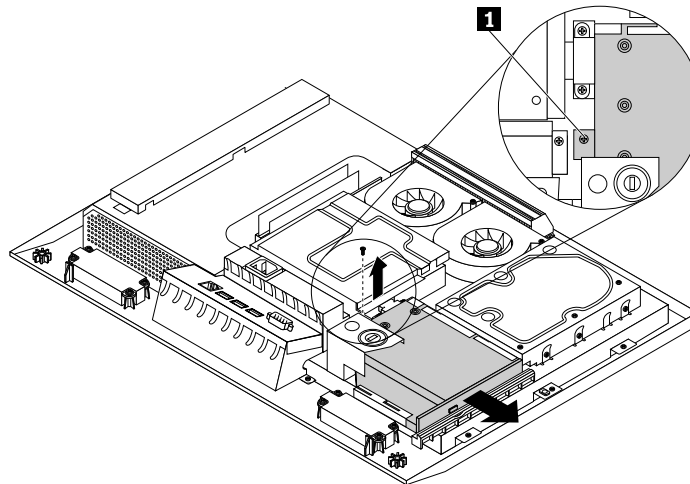
Do not open your computer or attempt any repair before reading and understanding the “Important safety information” in the *ThinkCentre Safety and Warranty Guide* that came with your computer. To obtain a copy of the *ThinkCentre Safety and Warranty Guide*, go to:
<http://www.lenovo.com/support>

This section provides instructions on how to replace the optical drive.

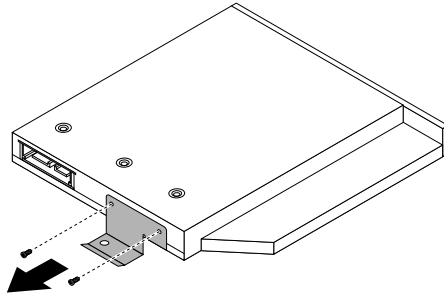
Removing the optical drive

To remove the optical drive, do the following:

1. Turn off the computer.
2. Disconnect all cables, power cords, and external options from your computer. See “Rear connectors” on page 65.
3. Place a soft, clean towel or cloth on the desk or surface. Hold the sides of your computer and gently lay it down so that the screen is against the surface and the cover is facing up.
4. Remove the computer cover. See “Removing the computer cover” on page 70.
5. Locate the optical drive. See “FRU locations” on page 66.
6. Remove the screw **1** that secures the optical drive to the main bracket and slide the optical drive out of the rail.



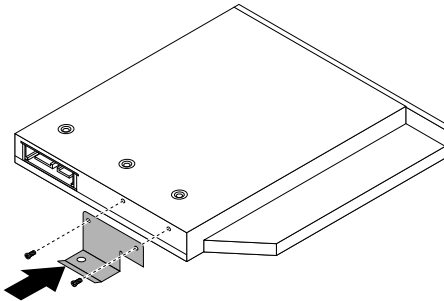
7. Remove the retention clip from the optical drive by removing the two screws as shown in the following illustration. Save the retention clip to use when you install the replacement optical drive.



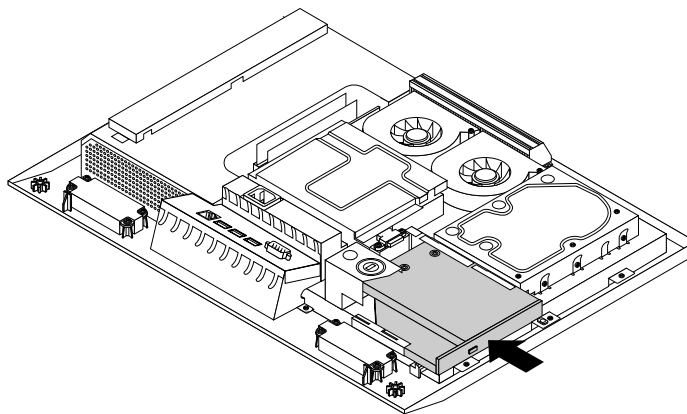
Installing an optical drive

To install an optical drive, do the following:

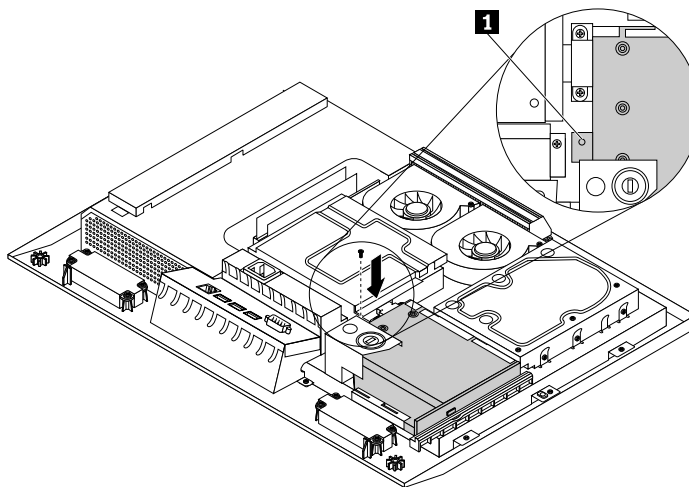
1. Turn off the computer.
2. Disconnect all cables, power cords, and external options from your computer. See “Rear connectors” on page 65.
3. Place a soft, clean towel or cloth on the desk or surface. Hold the sides of your computer and gently lay it down so that the screen is against the surface and the cover is facing up.
4. Remove the computer cover. See “Removing the computer cover” on page 70.
5. Attach the retention clip that you removed from the previous optical drive to the side of the new optical drive by installing the two screws to the alignment pins.



6. Align the optical drive in the drive bay and slide the optical drive into the rail until the optical drive clicks into position.



7. Reinstall the screw **1** to secure the optical drive to the chassis.



8. Go to “Completing the FRU installation” on page 108.

Replacing the memory module

Attention

Do not open your computer or attempt any repair before reading and understanding the “Important safety information” in the *ThinkCentre Safety and Warranty Guide* that came with your computer. To obtain a copy of the *ThinkCentre Safety and Warranty Guide*, go to:
<http://www.lenovo.com/support>

CAUTION:



The memory module might be very hot. Turn off the computer and wait three to five minutes to let the computer cool before opening the computer cover.

This section provides instructions on how to replace the memory module.

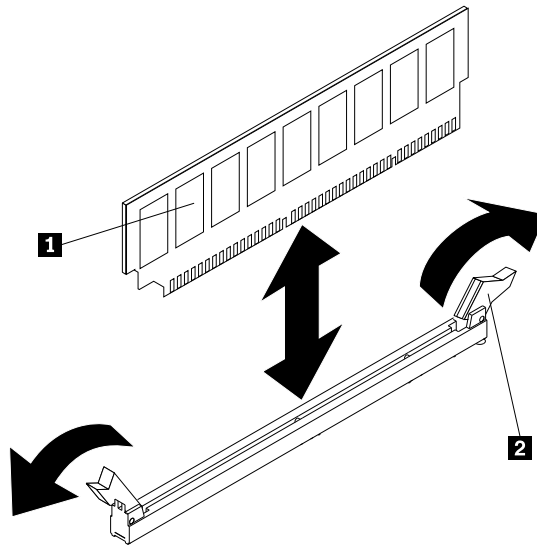
For machine types 1165, 1184, and 1186, support up to two double data rate 2 dual inline memory modules (DDR2 DIMMs)

For machine types 0401, 0994, and 2565, support up to two double data rate 3 dual inline memory modules (DDR3 DIMMs)

Removing the memory module

To remove the memory module, do the following:

1. Turn off the computer.
2. Disconnect all cables, power cords, and external options from your computer. See “Rear connectors” on page 65.
3. Place a soft, clean towel or cloth on the desk or surface. Hold the sides of your computer and gently lay it down so that the screen is against the surface and the cover is facing up.
4. Remove the computer cover. See “Removing the computer cover” on page 70.
5. Locate the memory module on the system board. See “System board connectors” on page 68.
6. Push down the retaining clip **2** on each end of the memory module slot and lift the memory module **1** out of the slot.

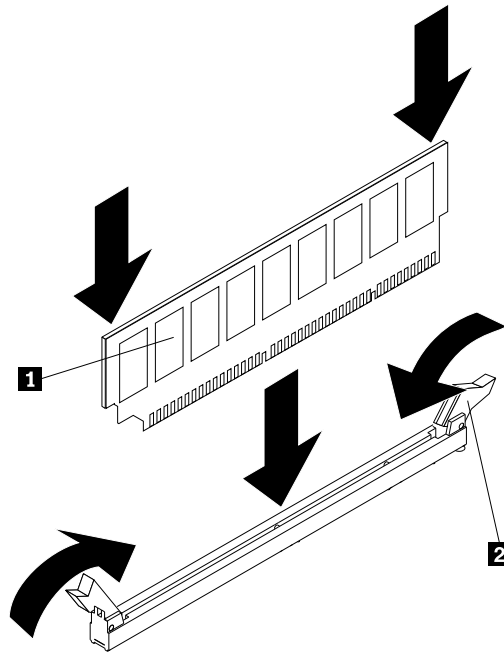


Installing a memory module

To install a memory module, do the following:

1. Turn off the computer.
2. Disconnect all cables, power cords, and external options from your computer. See “Rear connectors” on page 65.
3. Place a soft, clean towel or cloth on the desk or surface. Hold the sides of your computer and gently lay it down so that the screen is against the surface and the cover is facing up.
4. Remove the computer cover. See “Removing the computer cover” on page 70.
5. Replace the memory module by aligning the notch on the memory module with the key in the slot.
6. Firmly press the memory module **1** straight down into the slot by applying pressure on both ends of the memory module simultaneously. The retaining clips **2** snap into the locked position when the memory module is firmly seated in the slot.

Note: If there is a gap between the memory module and the retaining clips, the memory module has not been correctly inserted. Open the retaining clips, remove the memory module, and then reinsert it.



7. Go to “Completing the FRU installation” on page 108.

Replacing the microprocessor fan assembly

Attention

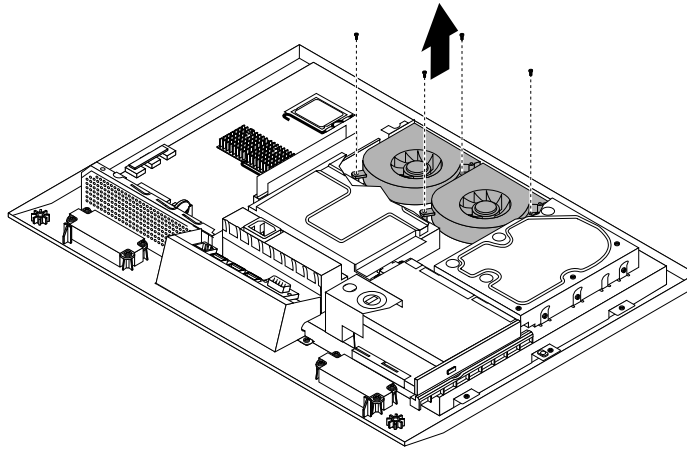
Do not open your computer or attempt any repair before reading and understanding the “Important safety information” in the *ThinkCentre Safety and Warranty Guide* that came with your computer. To obtain a copy of the *ThinkCentre Safety and Warranty Guide*, go to:
<http://www.lenovo.com/support>

This section provides instructions on how to replace the microprocessor fan assembly.

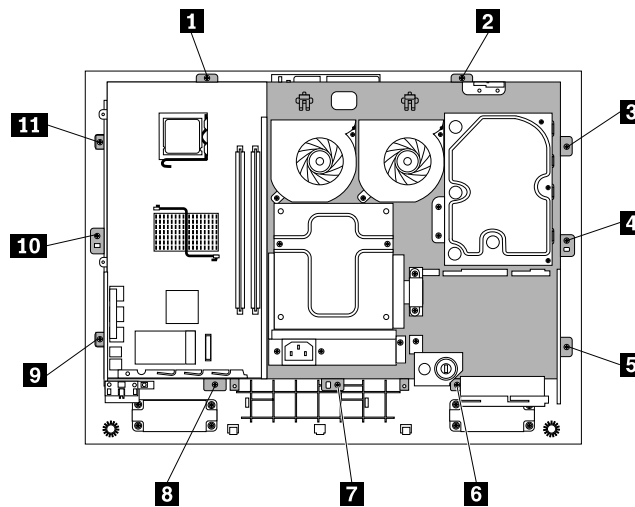
Removing the microprocessor fan assembly

To remove the microprocessor fan assembly, do the following:

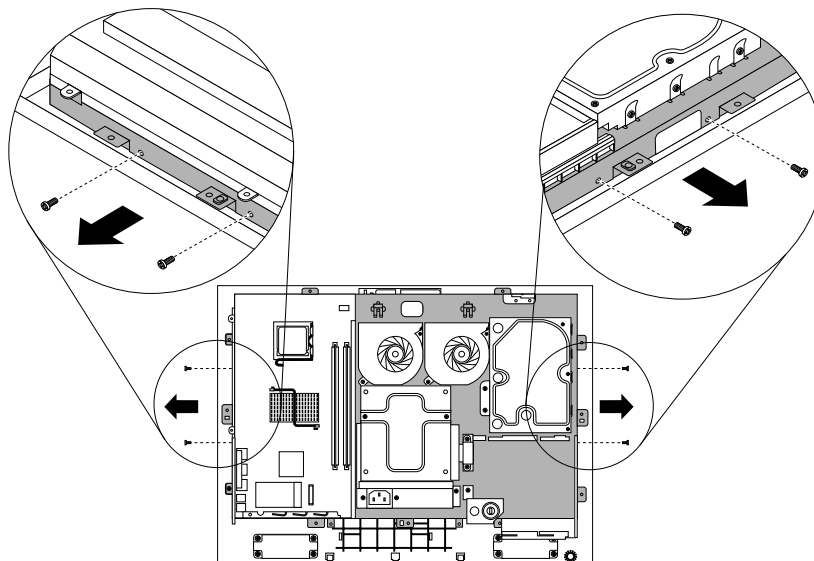
1. Turn off the computer.
2. Disconnect all cables, power cords, and external options from your computer. See “Rear connectors” on page 65.
3. Place a soft, clean towel or cloth on the desk or surface. Hold the sides of your computer and gently lay it down so that the screen is against the surface and the cover is facing up.
4. Remove the computer cover. See “Removing the computer cover” on page 70.
5. Open the system board shielding. See “Opening the system board shielding” on page 71.
6. Disconnect the microprocessor fan assembly cables from the system board. See “System board connectors” on page 68.
7. Remove the heat sink assembly to gain access to the microprocessor fan assembly. See “Removing the microprocessor and heat sink assembly” on page 85.
8. Remove the four screws that attach the microprocessor fan assembly to the main bracket.



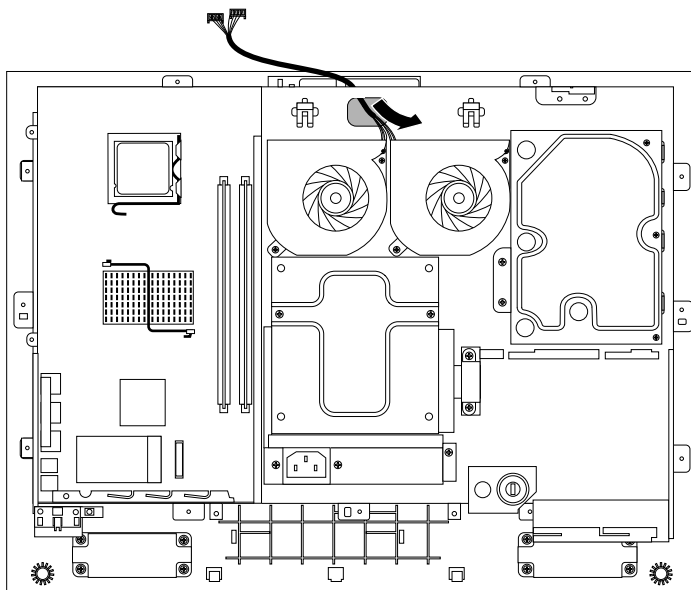
9. Remove the optical drive and the rear I/O assembly to gain access to all the 11 screws that hold the LCD panel. See “Removing the optical drive” on page 77 and “Removing the rear I/O assembly” on page 92.



10. Remove all the 11 screws that secure the main bracket to the front bezel.
11. Remove the four screws that attach the LCD panel to the main bracket.



12. Lift the main bracket up a little bit so that the LCD panel detaches from the main bracket, and you can gently pull out the microprocessor fan assembly cable connectors through the hole in the main bracket.

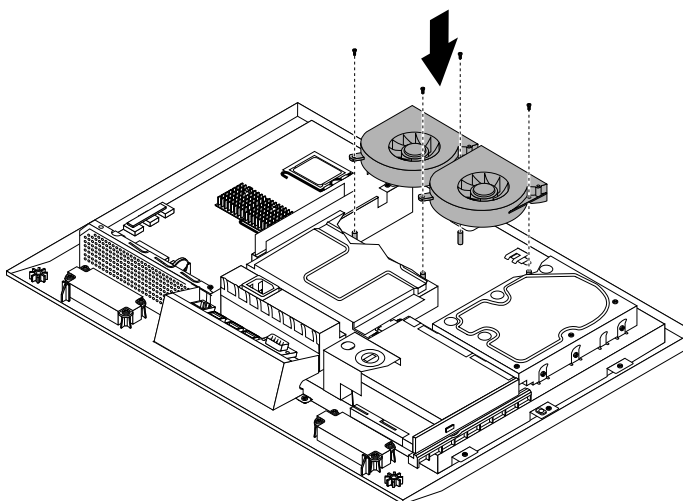


13. Lift the microprocessor fan assembly and cables up and out of the main bracket.

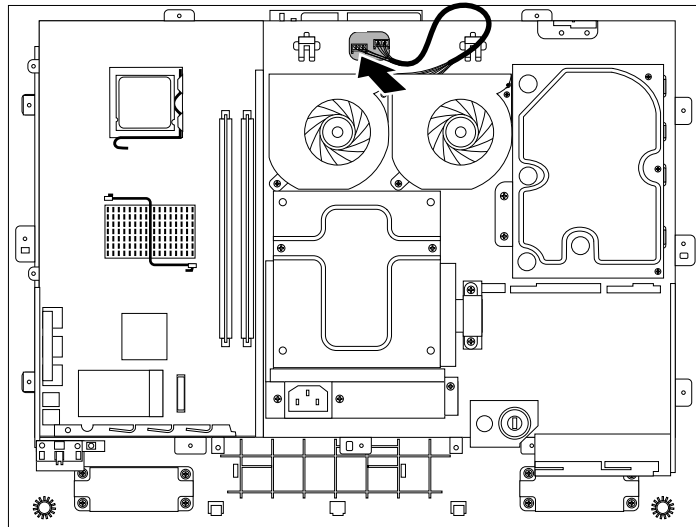
Installing a microprocessor fan assembly

To install a microprocessor fan assembly, do the following:

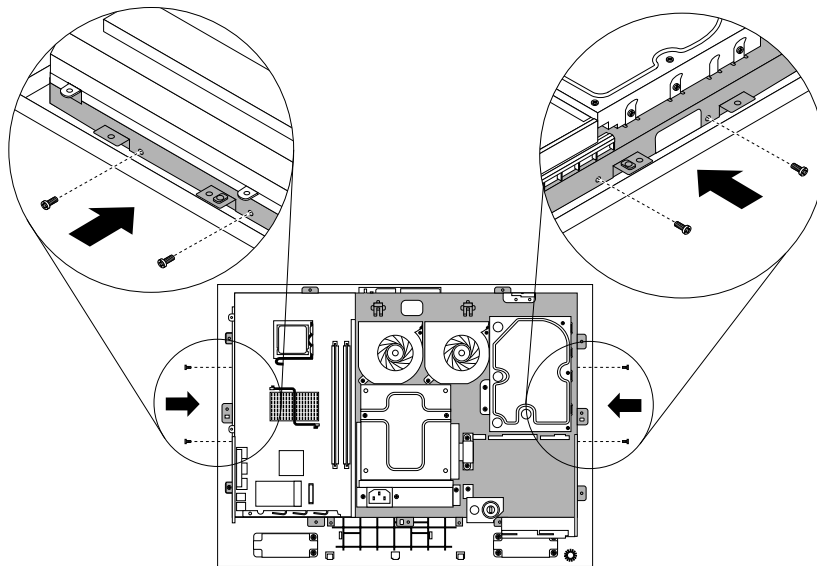
1. Reinstall the four screws that attach the new microprocessor fan assembly to the main bracket.



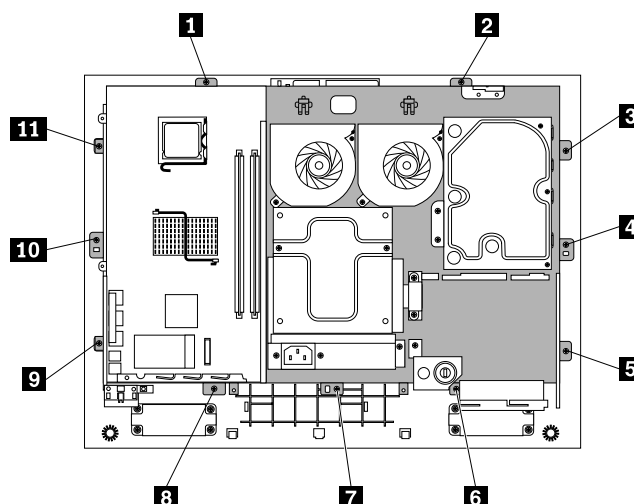
2. Lift the main bracket up so that you can route the microprocessor fan assembly cables through the hole in the main bracket. Connect the microprocessor fan assembly cables to the system board connectors.



3. Route the microprocessor fan assembly cables so that they will not be pinched by the system board shielding.
4. Reinstall the four screws that attach the LCD panel to the main bracket.



5. Reinstall all the 11 screws that secure the main bracket to the front bezel.



6. Reinstall the optical drive. See “Installing an optical drive” on page 78.
7. Reinstall the heat sink assembly. See “Installing the microprocessor and heat sink assembly” on page 87.
8. Close the system board shielding. See “Closing the system board shielding” on page 72.
9. Go to “Completing the FRU installation” on page 108.

Replacing the microprocessor and heat sink assembly

CAUTION:



The microprocessor and heat sink assembly might be very hot. Turn off the computer and wait three to five minutes to let the computer cool before opening the computer cover.

Attention

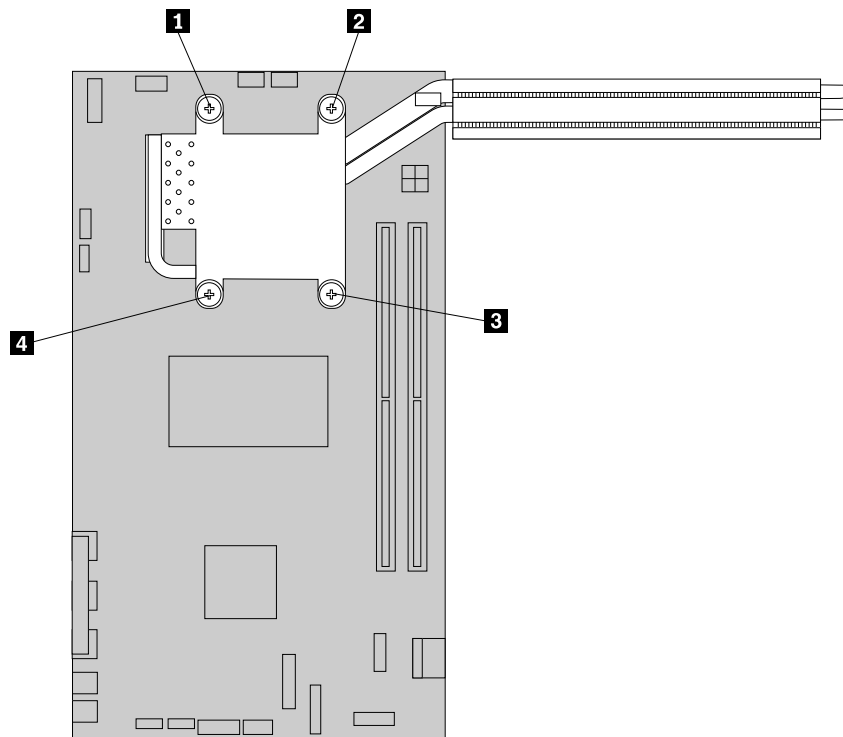
Do not open your computer or attempt any repair before reading and understanding the “Important safety information” in the *ThinkCentre Safety and Warranty Guide* that came with your computer. To obtain a copy of the *ThinkCentre Safety and Warranty Guide*, go to:
<http://www.lenovo.com/support>

This section provides instructions on how to replace the microprocessor and heat sink assembly.

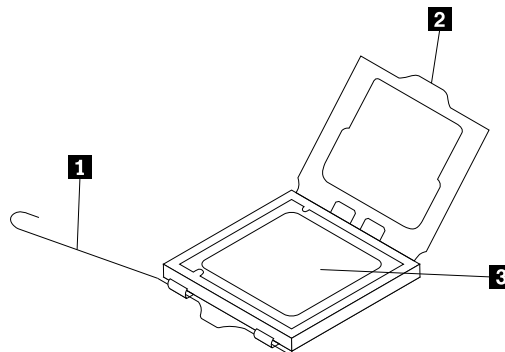
Removing the microprocessor and heat sink assembly

To remove the microprocessor and heat sink assembly, do the following:

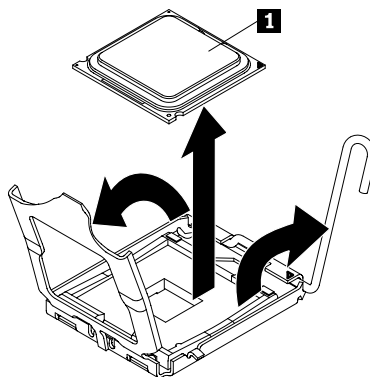
1. Turn off the computer.
2. Disconnect all cables, power cords, and external options from your computer. See “Rear connectors” on page 65.
3. Place a soft, clean towel or cloth on the desk or surface. Hold the sides of your computer and gently lay it down so that the screen is against the surface and the cover is facing up.
4. Remove the computer cover. See “Removing the computer cover” on page 70.
5. Open the system board shielding. See “Opening the system board shielding” on page 71.
6. Locate the microprocessor and heat sink assembly. See “System board connectors” on page 68.
7. Follow this sequence to remove the four screws that secure the heat sink assembly to the system board:



- a. Partially remove screw **1**, fully remove screw **3**, and then fully remove screw **1**.
- b. Partially remove screw **2**, fully remove screw **4**, and then fully remove screw **2**.
8. Carefully lift the heat sink assembly off the system board. Place the heat sink assembly on its side on a clean, flat surface.
9. Release the microprocessor retention latch **1** by pressing down on the end, moving it to the side, and releasing it to the open position.



10. Open the microprocessor bracket frame **2** by lifting up the tab on the top edge. Keep the bracket frame in the open position.
11. Carefully lift the microprocessor **1** straight up and out of the socket, and place it on a static-protective surface.

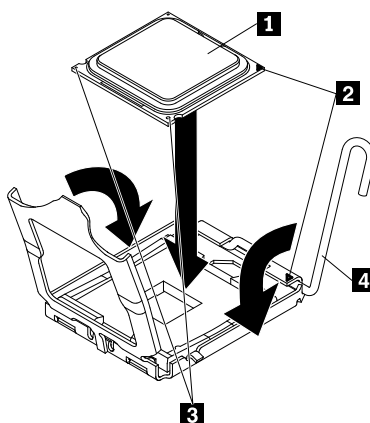


Installing the microprocessor and heat sink assembly

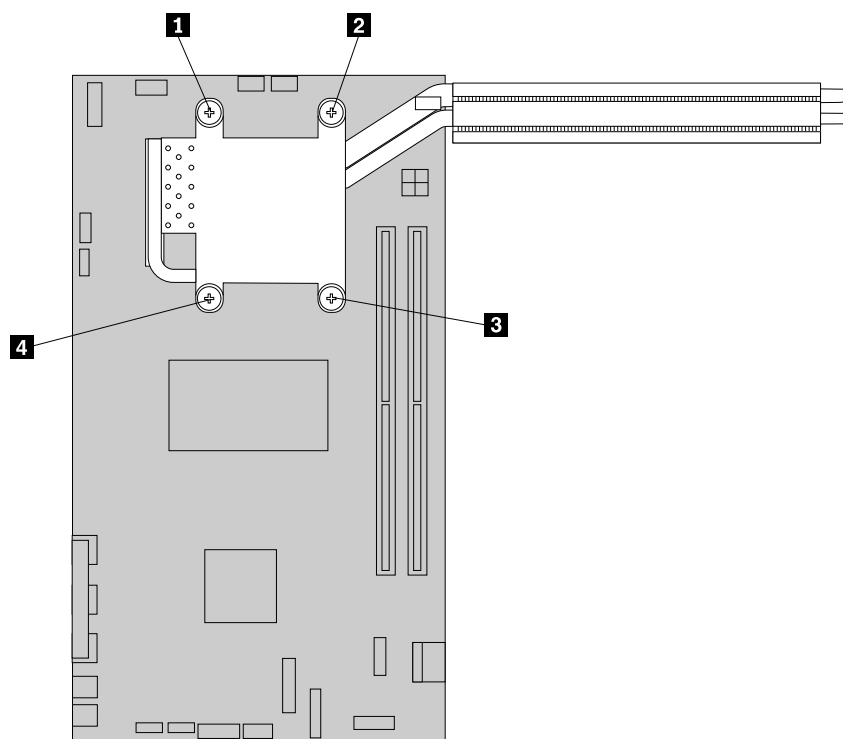
To install a microprocessor and heat sink assembly, do the following:

1. Touch the static-protective package that contains the new microprocessor to any unpainted metal surface on the computer; remove the microprocessor from the package.
2. Align the microprocessor **1** with the socket (note the alignment mark **2** and the position of the notches **3**); carefully place the microprocessor on the socket and close the microprocessor bracket frame.

Note: The microprocessor fits only one way on the socket.



3. Carefully close the microprocessor release lever **4** to the closed position to secure the microprocessor in the socket.
4. Clean the grease from the heat sink assembly and apply new grease on the microprocessor.
5. Align the heat sink assembly on top of the microprocessor, and make sure the four screws in the heat sink align with the holes in the system board.
6. Follow this sequence to install the four screws that secure the heat sink assembly to the system board:



- a. Partially install screw **1**, fully install screw **3**, and then fully install screw **1**.
- b. Partially install screw **2**, fully install screw **4**, and then fully install screw **2**.
7. Close the system board shielding. See “Closing the system board shielding” on page 72.
8. Go to “Completing the FRU installation” on page 108.

Replacing the system board

This section provides instructions on how to replace the system board.

CAUTION:



The microprocessor and heat sink assembly might be very hot. Turn off the computer and wait three to five minutes to let the computer cool before opening the computer cover.

Attention

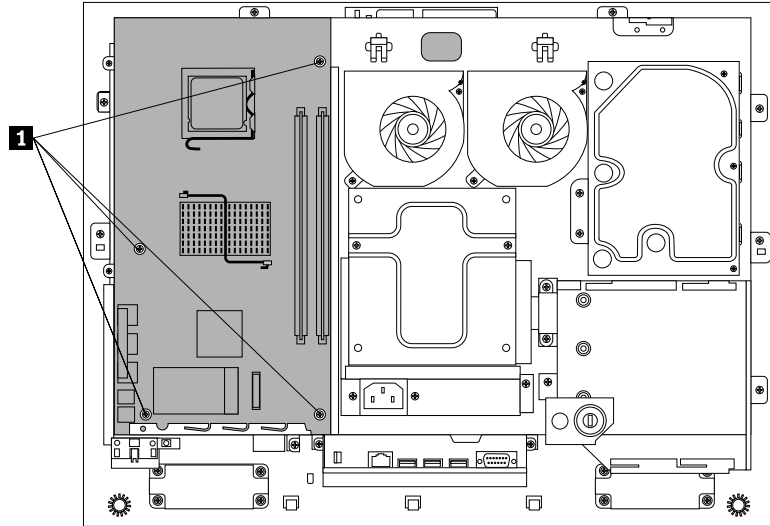
Do not open your computer or attempt any repair before reading and understanding the “Important safety information” in the *ThinkCentre Safety and Warranty Guide* that came with your computer. To obtain a copy of the *ThinkCentre Safety and Warranty Guide*, go to:
<http://www.lenovo.com/support>

Removing the system board

To remove the system board, do the following:

1. Turn off the computer.
2. Disconnect all cables, power cords, and external options from your computer. See “Rear connectors” on page 65.

3. Place a soft, clean towel or cloth on the desk or surface. Hold the sides of your computer and gently lay it down so that the screen is against the surface and the cover is facing up.
4. Remove the computer cover. See “Removing the computer cover” on page 70.
5. Open the system board shielding. See “Opening the system board shielding” on page 71.
6. Note the locations of all cable connections on the system board and disconnect all cables. See “System board connectors” on page 68.
7. Remove the microprocessor and heat sink assembly from the system board. See “Removing the microprocessor and heat sink assembly” on page 85.
8. Remove the four screws that attach the system board to the main bracket **1**.

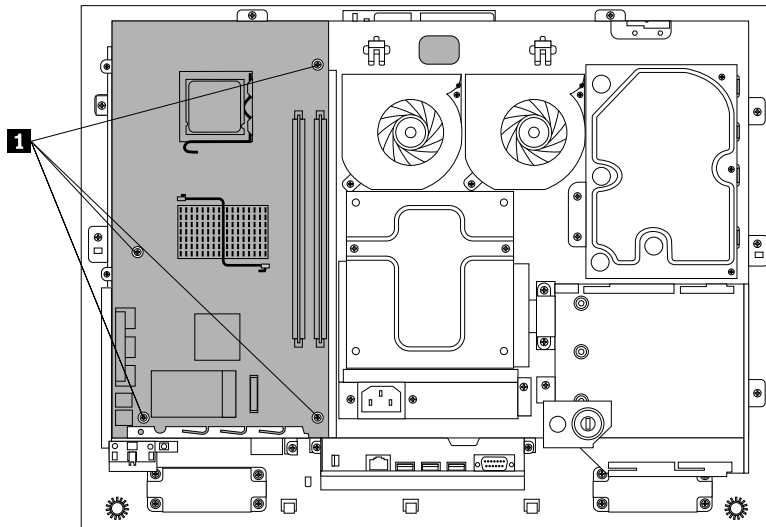


9. Carefully lift the system board out of the chassis.
10. Remove the memory modules from the failing system board and install them in the same locations on the new system board.

Installing a system board

To install a system board, do the following:

1. Install the new system board into the chassis and align the screw holes with those in the chassis.
2. Insert and tighten the four screws **1** that secure the system board to the main bracket.



3. Reconnect all cables that were disconnected from the system board. See “System board connectors” on page 68.
4. Reinstall the microprocessor and heat sink assembly that were removed. Route the cables so that they will not be pinched by any FRUs and covers. See “Installing the microprocessor and heat sink assembly” on page 87.
5. Close the system board shielding. See “Closing the system board shielding” on page 72.
6. Go to “Completing the FRU installation” on page 108.

Replacing the internal speakers

Attention

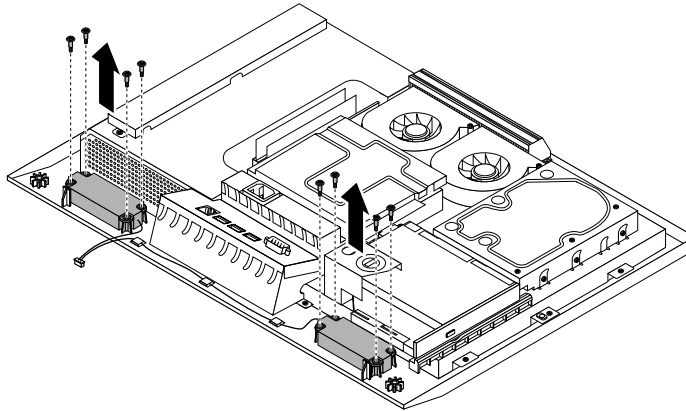
Do not open your computer or attempt any repair before reading and understanding the “Important safety information” in the *ThinkCentre Safety and Warranty Guide* that came with your computer. To obtain a copy of the *ThinkCentre Safety and Warranty Guide*, go to:
<http://www.lenovo.com/support>

This section provides instructions on how to replace the internal speakers.

Removing the internal speakers

To remove the internal speakers, do the following:

1. Turn off the computer.
2. Disconnect all cables, power cords, and external options from your computer. See “Rear connectors” on page 65.
3. Place a soft, clean towel or cloth on the desk or surface. Hold the sides of your computer and gently lay it down so that the screen is against the surface and the cover is facing up.
4. Remove the computer cover. See “Removing the computer cover” on page 70.
5. Note the location of the internal speaker cable connection. Note the routing of the internal speaker cables. Disconnect the internal speaker cables from the system board.
6. Remove the four screws that secure each of the internal speakers to the front bezel.

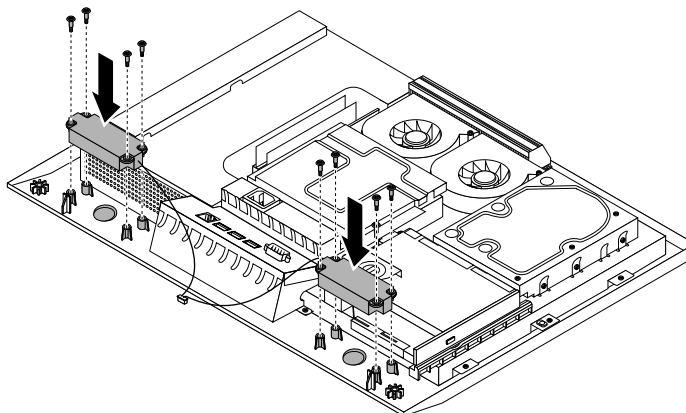


7. Remove the internal speakers and internal speaker cables from the computer.

Installing internal speakers

To install internal speakers, do the following:

1. Turn off the computer.
2. Disconnect all cables, power cords, and external options from your computer. See “Rear connectors” on page 65.
3. Place a soft, clean towel or cloth on the desk or surface. Hold the sides of your computer and gently lay it down so that the screen is against the surface and the cover is facing up.
4. Remove the computer cover. See “Removing the computer cover” on page 70.
5. Route the internal speaker cables and then position new internal speakers over the front bezel and make sure the four screw holes of each internal speaker align with those in the front bezel.
6. Reinstall the four screws to secure the internal speakers to the front bezel.



7. Reconnect the internal speaker cable connectors to the system board.
8. Go to “Completing the FRU installation” on page 108.

Replacing the rear I/O assembly

Attention

Do not open your computer or attempt any repair before reading and understanding the “Important safety information” in the *ThinkCentre Safety and Warranty Guide* that came with your computer. To obtain a copy

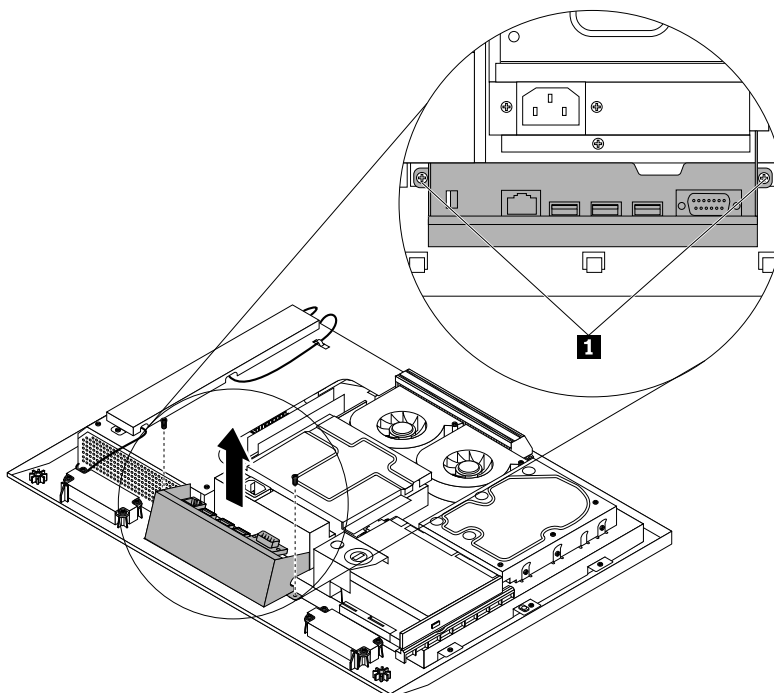
of the *ThinkCentre Safety and Warranty Guide*, go to:
<http://www.lenovo.com/support>

This section provides instructions on how to replace the rear I/O assembly.

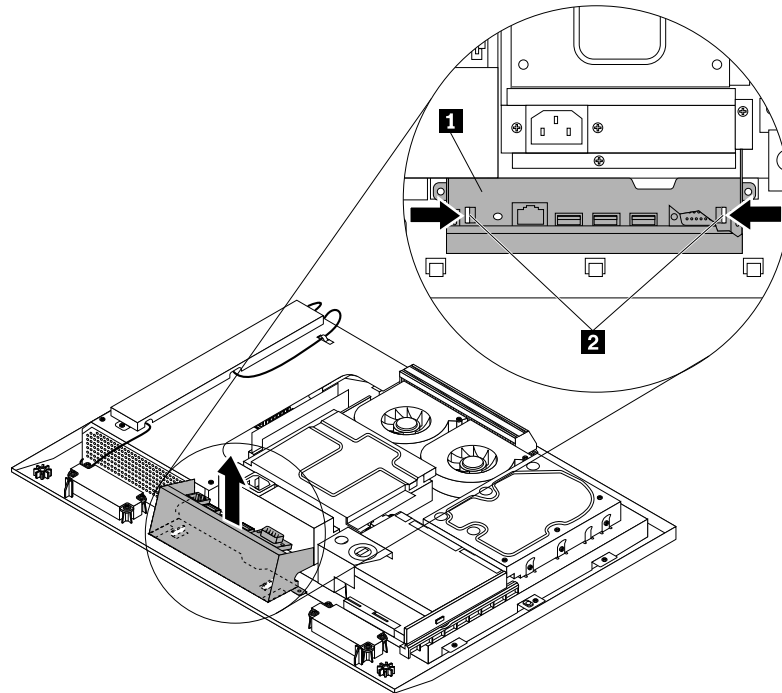
Removing the rear I/O assembly

To remove the rear I/O assembly, do the following:

1. Turn off the computer.
2. Disconnect all cables, power cords, and external options from your computer. See “Rear connectors” on page 65.
3. Place a soft, clean towel or cloth on the desk or surface. Hold the sides of your computer and gently lay it down so that the screen is against the surface and the cover is facing up.
4. Remove the computer cover. See “Removing the computer cover” on page 70.
5. Remove the rear I/O shielding. See “Removing the rear I/O shielding” on page 73.
6. Note the location of the rear I/O assembly cables connection. Note the routing of the rear I/O assembly cables. Disconnect all the rear I/O assembly cables.
7. Remove the two screws **1** that secure the rear I/O assembly to the main bracket.



8. Press the rear I/O assembly-locking tabs **2** inward to disengage the rear I/O assembly **1** from the main bracket.

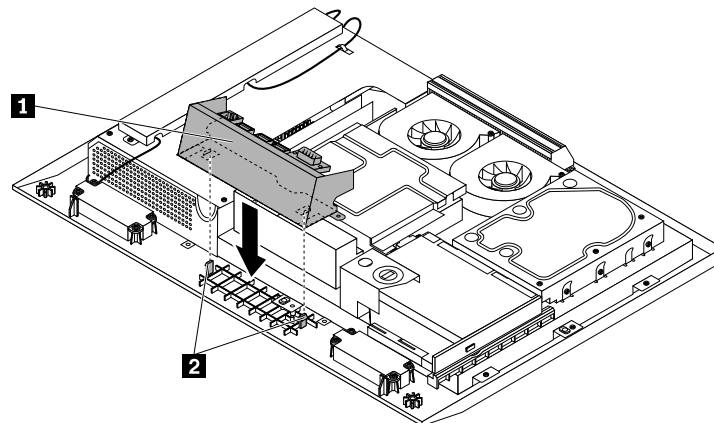


9. Remove the rear I/O assembly and rear I/O assembly cables from the computer.

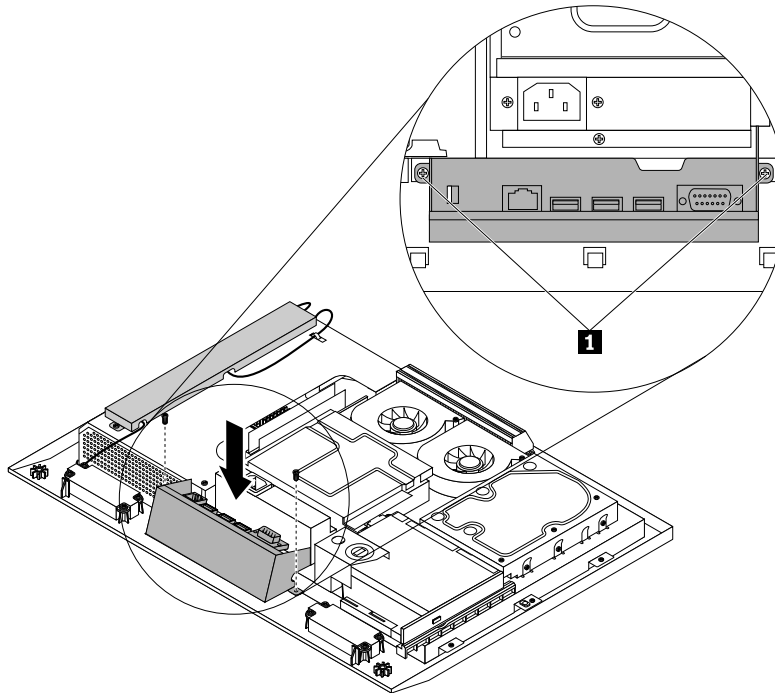
Installing a rear I/O assembly

To install a rear I/O assembly, do the following:

1. Reconnect all the rear I/O assembly cables. See “System board connectors” on page 68.
2. Position the new rear I/O assembly into the slots, and route the rear I/O assembly cables so that the excess cables tuck in the rear I/O assembly, and then push the rear I/O assembly **1** downward until the rear I/O assembly-locking tabs **2** snap into position.



3. Install the two screws **1** that secure the rear I/O assembly to the main bracket.



4. Reinstall the rear I/O shielding. See “Installing the rear I/O shielding” on page 74.
5. Go to “Completing the FRU installation” on page 108.

Replacing the integrated webcam

Attention

Do not open your computer or attempt any repair before reading and understanding the “Important safety information” in the *ThinkCentre Safety and Warranty Guide* that came with your computer. To obtain a copy of the *ThinkCentre Safety and Warranty Guide*, go to:
<http://www.lenovo.com/support>

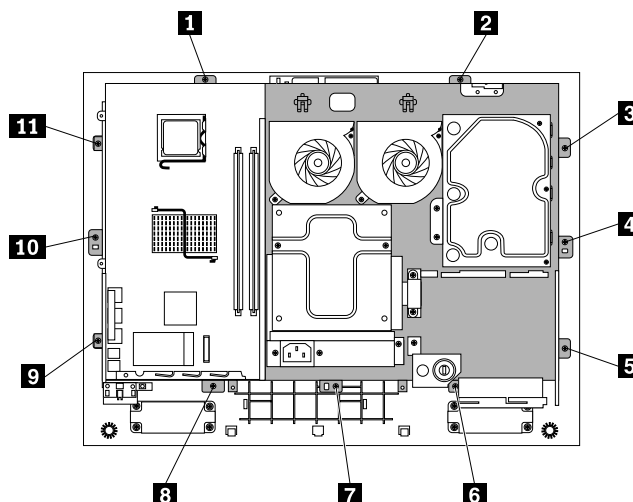
This section provides instructions on how to replace the integrated webcam.

Removing the integrated webcam

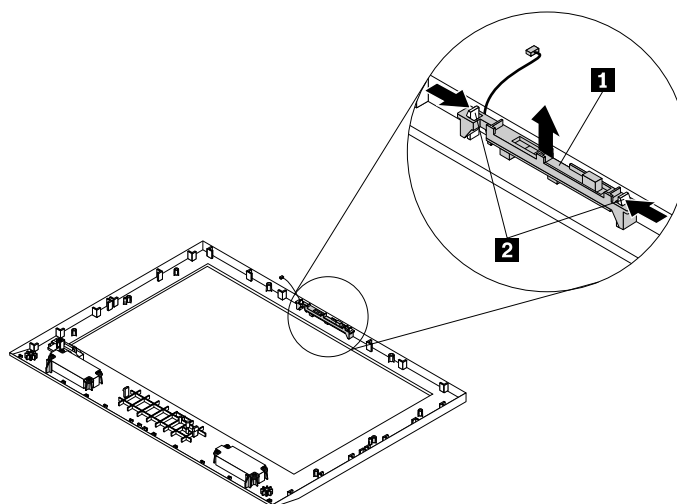
To remove the integrated webcam, do the following:

1. Turn off the computer.
2. Disconnect all cables, power cords, and external options from your computer. See “Rear connectors” on page 65.
3. Place a soft, clean towel or cloth on the desk or surface. Hold the sides of your computer and gently lay it down so that the screen is against the surface and the cover is facing up.
4. Remove the computer cover. See “Removing the computer cover” on page 70.
5. Remove the hard disk drive. See “Replacing the hard disk drive” on page 74.
6. Remove the optical drive. See “Removing the optical drive” on page 77.
7. Open the system board shielding. See “Opening the system board shielding” on page 71.
8. Remove the rear I/O assembly. See “Removing the rear I/O assembly” on page 92.
9. Remove the power supply assembly. See “Removing the power supply assembly” on page 102.

10. Remove the microprocessor and heat sink assembly. See “Removing the microprocessor and heat sink assembly” on page 85.
11. Remove the microprocessor fan assembly. See “Removing the microprocessor fan assembly” on page 81.
12. Remove the memory modules. See “Removing the memory module” on page 79.
13. Remove the system board. See “Removing the system board” on page 88.
14. Remove all the 11 screws that secure the main bracket to the front bezel.



15. Locate the integrated webcam connector on the system board. See “System board connectors” on page 68.
16. Note the location of the integrated webcam cable connection. Note the routing of the integrated webcam cable. Disconnect the integrated webcam cable from the system board.
17. Press the integrated webcam-locking tabs **2** inward to disengage the integrated webcam **1** from the front bezel.

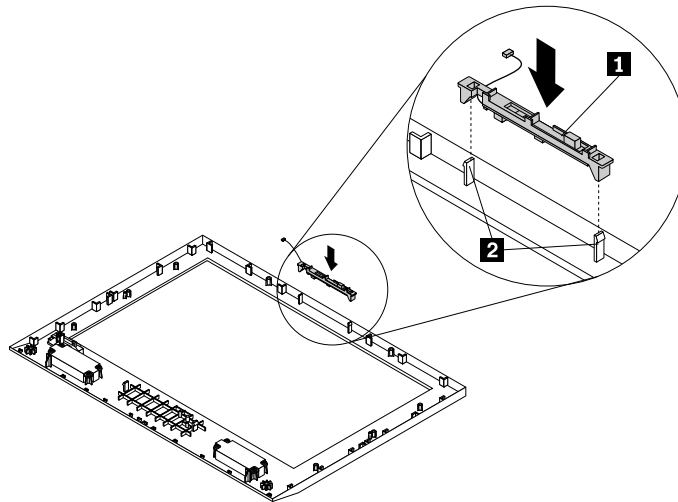


18. Remove the integrated webcam and integrated webcam cable from the computer.

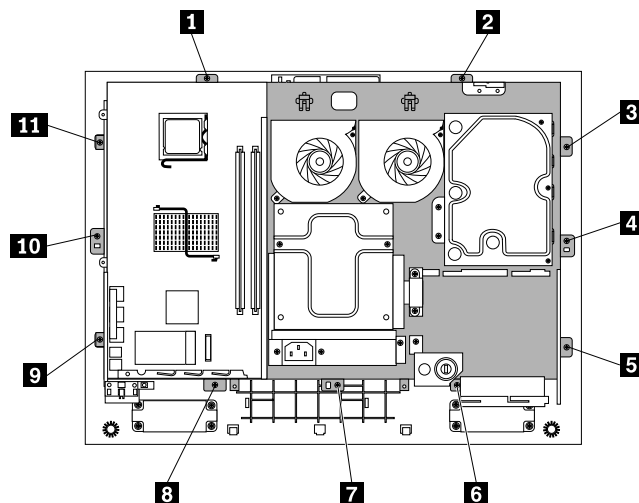
Installing an integrated webcam

To install an integrated webcam, do the following:

1. Position the new integrated webcam tabs into the integrated webcam slots and then press the integrated webcam **1** downward until the integrated webcam-locking tabs **2** snap into position.



2. Connect the integrated webcam cable to the system board and route the excess integrated webcam cable along the side of the main bracket. See “System board connectors” on page 68.
3. Reinstall all the 11 screws that secure the main bracket to the front bezel.



4. Reinstall the system board. See “Installing a system board” on page 89.
5. Reinstall the microprocessor and heat sink assembly. “Installing the microprocessor and heat sink assembly” on page 87.
6. Remove the microprocessor fan assembly. See “Installing a microprocessor fan assembly” on page 83.
7. Reinstall the memory modules. See “Installing a memory module” on page 80.
8. Reinstall the power supply assembly. See “Installing a power supply assembly” on page 104.
9. Reinstall the optical drive. See “Installing an optical drive” on page 78.
10. Reinstall the hard disk drive. See “Installing a hard disk drive” on page 75.
11. Reinstall the rear I/O assembly. See “Installing a rear I/O assembly” on page 93.
12. Close the system board shielding. See “Closing the system board shielding” on page 72.
13. Reinstall the rear I/O shielding. See “Installing the rear I/O shielding” on page 74.
14. Go to “Completing the FRU installation” on page 108.

Replacing the inverter

Attention

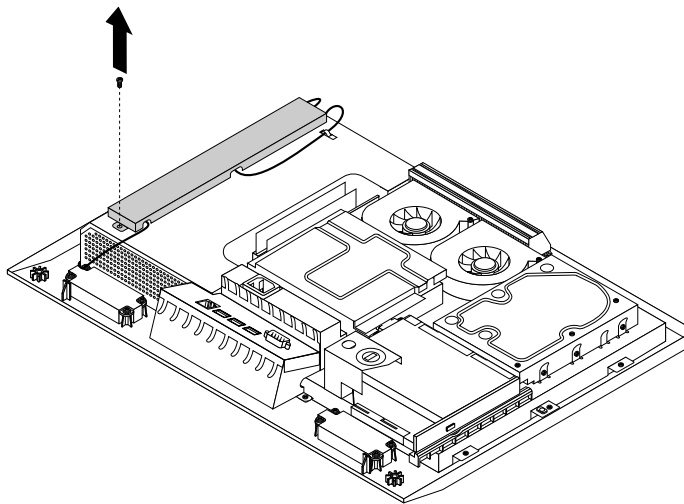
Do not open your computer or attempt any repair before reading and understanding the “Important safety information” in the *ThinkCentre Safety and Warranty Guide* that came with your computer. To obtain a copy of the *ThinkCentre Safety and Warranty Guide*, go to:
<http://www.lenovo.com/support>

This section provides instructions on how to replace the inverter.

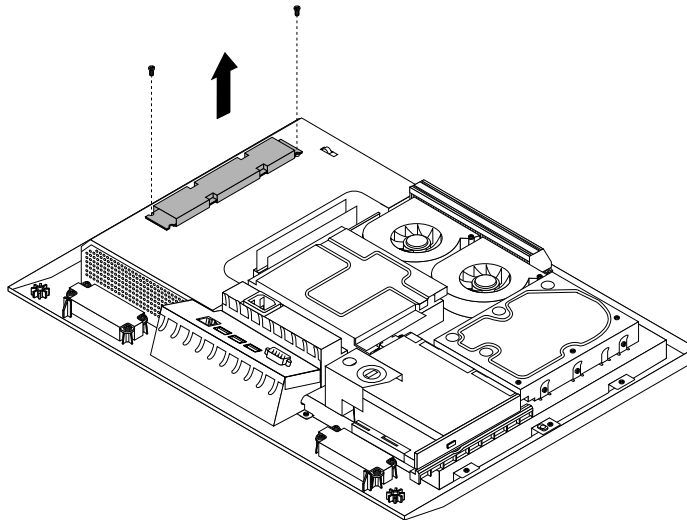
Removing the inverter

To remove the inverter, do the following:

1. Turn off the computer.
2. Disconnect all cables, power cords, and external options from your computer. See “Rear connectors” on page 65.
3. Place a soft, clean towel or cloth on the desk or surface. Hold the sides of your computer and gently lay it down so that the screen is against the surface and the cover is facing up.
4. Remove the computer cover. See “Removing the computer cover” on page 70.
5. Remove the inverter shielding by removing the screw that secures the inverter shielding to the system board shielding.



6. Disconnect the three inverter cables.
7. Remove the two screws that secure the inverter to the system board shielding. Remove the inverter cover that came with the inverter.



8. Lift the inverter out of the computer.

Installing an inverter

Attention

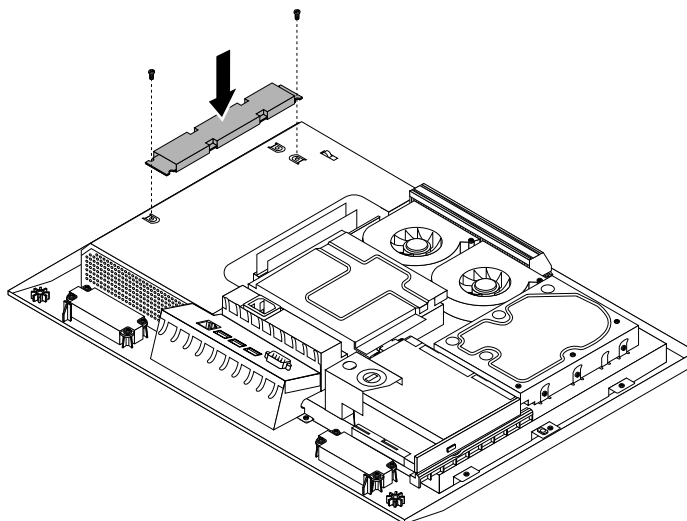
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To install an inverter, do the following:

1. Place the inverter into place so that the two screw holes in the inverter align with the holes in the system board shielding.
2. Replace the inverter cover to the inverter.

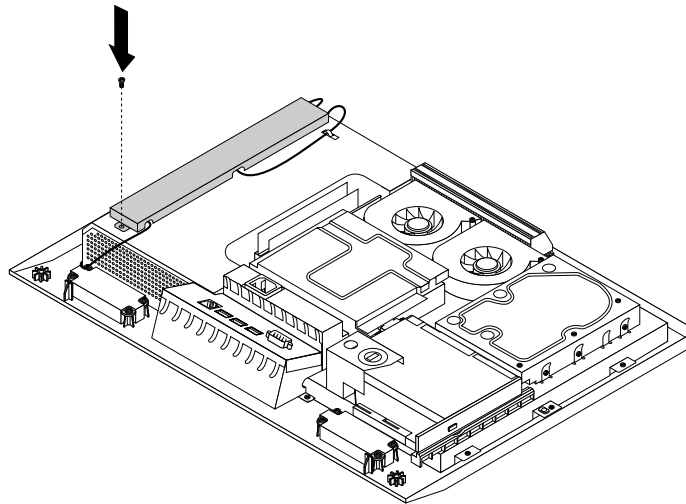
Note: The inverter cover only fits one way to the inverter.

3. Install the two screws that secure the inverter to the system board shielding.



4. Connect the three cables to the inverter.

5. Install the inverter shielding that was removed by inserting one end into the slots and reinstalling the screw.



6. Go to “Completing the FRU installation” on page 108.

Replacing the battery

Attention

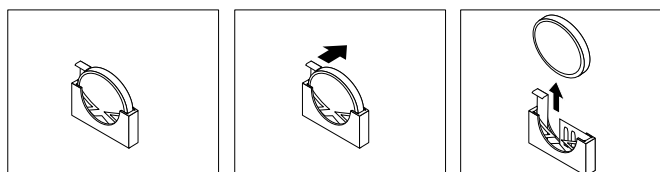
Do not open your computer or attempt any repair before reading and understanding the “Important safety information” in the *ThinkCentre Safety and Warranty Guide* that came with your computer. To obtain a copy of the *ThinkCentre Safety and Warranty Guide*, go to:
<http://www.lenovo.com/support>

This section provides instructions on how to replace the battery.

Removing the battery

To remove the battery, do the following:

1. Turn off the computer.
2. Disconnect all cables, power cords, and external options from your computer. See “Rear connectors” on page 65.
3. Place a soft, clean towel or cloth on the desk or surface. Hold the sides of your computer and gently lay it down so that the screen is against the surface and the cover is facing up.
4. Remove the computer cover. See “Removing the computer cover” on page 70.
5. Open the system board shielding. See “Opening the system board shielding” on page 71.
6. Locate the battery on the system board. See “System board connectors” on page 68.
7. Use one finger to tilt the clip aside and use your thumb and index finger to grab on the edge of the battery and pull it up and out of the container holding it.

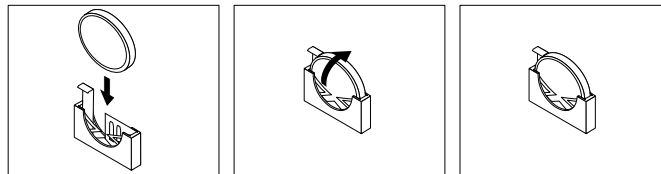


8. Dispose of the battery as required by local ordinances or regulations. See the *ThinkCentre Safety and Warranty Guide* for more information.

Installing a battery

To install a battery, do the following:

1. Turn off the computer.
2. Disconnect all cables, power cords, and external options from your computer. See “Rear connectors” on page 65.
3. Place a soft, clean towel or cloth on the desk or surface. Hold the sides of your computer and gently lay it down so that the screen is against the surface and the cover is facing up.
4. Remove the computer cover. See “Removing the computer cover” on page 70.
5. Open the system board shielding. See “Opening the system board shielding” on page 71.
6. Tilt the battery so that you can insert it into the socket on the side opposite the battery clip.
7. Press the battery down into the socket until it clicks into place. Make sure that the battery clip holds the battery securely.



8. Close the system board shielding. See “Closing the system board shielding” on page 72.
9. Go to “Completing the FRU installation” on page 108.

Replacing the system fan

Attention

Do not open your computer or attempt any repair before reading and understanding the “Important safety information” in the *ThinkCentre Safety and Warranty Guide* that came with your computer. To obtain a copy of the *ThinkCentre Safety and Warranty Guide*, go to:
<http://www.lenovo.com/support>

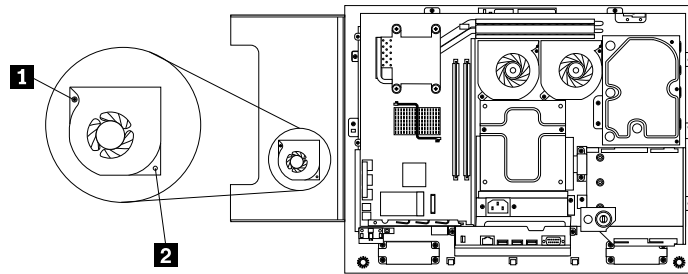
This section provides instructions on how to replace the system fan.

Removing the system fan

To remove the system fan, do the following:

1. Turn off the computer.
2. Disconnect all cables, power cords, and external options from your computer. See “Rear connectors” on page 65.
3. Place a soft, clean towel or cloth on the desk or surface. Hold the sides of your computer and gently lay it down so that the screen is against the surface and the cover is facing up.
4. Remove the computer cover. See “Removing the computer cover” on page 70.
5. Remove the inverter. See “Replacing the inverter” on page 97.
6. Remove the rear I/O assembly and disconnect all the cables from the rear I/O assembly. See “Removing the rear I/O assembly” on page 92.

7. Open the system board shielding. See “Opening the system board shielding” on page 71.
8. Remove the two screws, **1** and **2**, that secure the system fan to the system board shielding.

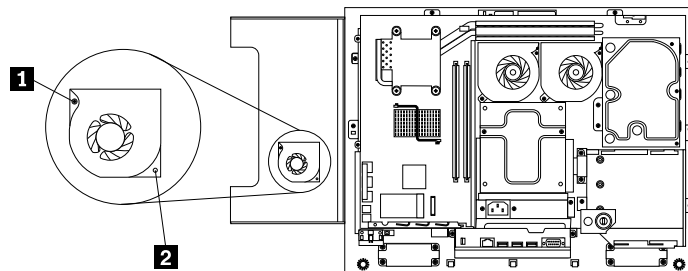


9. Lift the system fan and system fan cable away from the computer.

Installing a system fan

To install a system fan, do the following:

1. Open the system board shielding. See “Opening the system board shielding” on page 71.
2. Align the system fan over the system board shielding so that the screw holes align with the mounting studs in the system board shielding.
3. Install the two screws, **1** and **2**, that secure the system fan to the system board shielding.



4. Reconnect the rear I/O assembly cables to the system board. Reconnect the system fan cable to the rear I/O assembly. See “System board connectors” on page 68.
5. Reinstall the rear I/O assembly. See “Installing a rear I/O assembly” on page 93.
6. Install the inverter. See “Installing an inverter” on page 98.
7. Close the system board shielding. See “Closing the system board shielding” on page 72.
8. Reinstall the rear I/O shielding. See “Installing the rear I/O shielding” on page 74.
9. Go to “Completing the FRU installation” on page 108.

Replacing the power supply assembly

Attention

Never remove the cover on a power supply or any part that has the following label attached.



Hazardous voltage, current, and energy levels are present inside any component that has this label attached. There are no servicable parts inside these components.

Attention

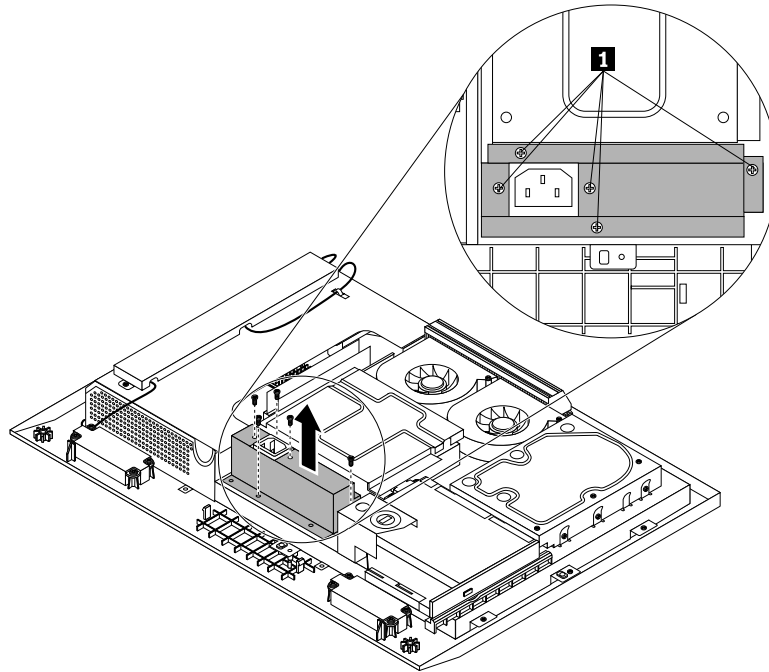
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<http://www.lenovo.com/support>

This section provides instructions on how to replace the power supply assembly.

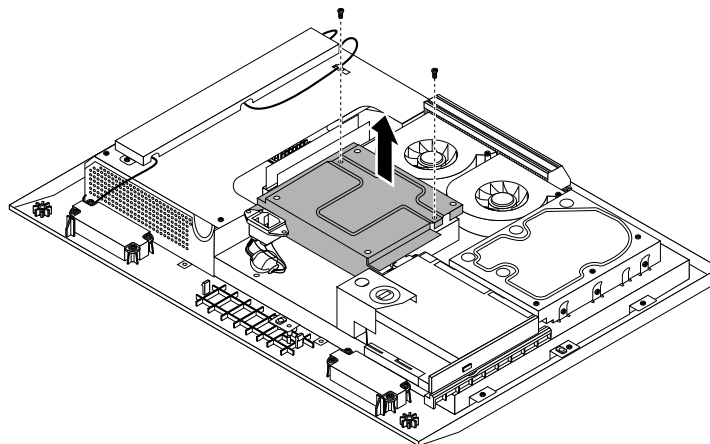
Removing the power supply assembly

To remove the power supply assembly, do the following:

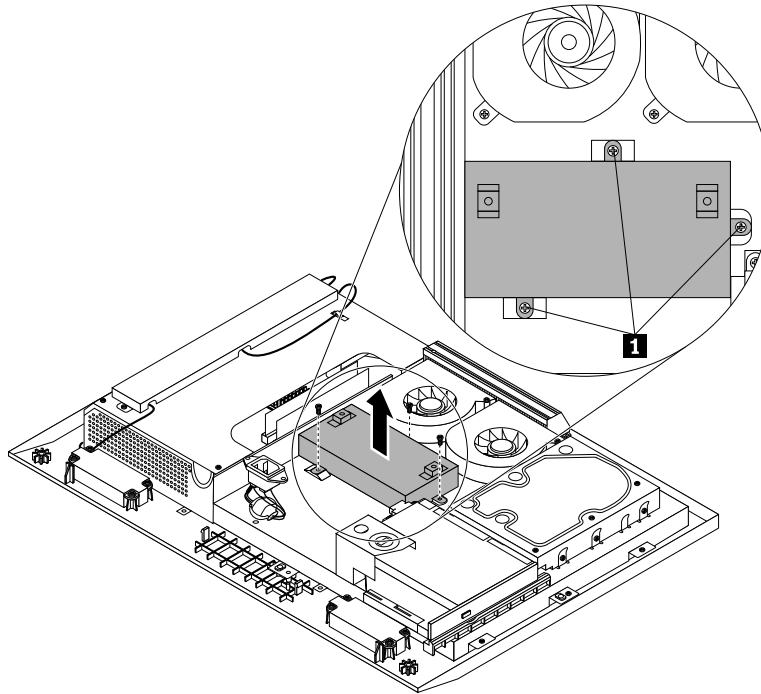
1. Turn off the computer.
2. Disconnect all cables, power cords, and external options from your computer. See “Rear connectors” on page 65.
3. Place a soft, clean towel or cloth on the desk or surface. Hold the sides of your computer and gently lay it down so that the screen is against the surface and the cover is facing up.
4. Remove the computer cover. See “Removing the computer cover” on page 70.
5. Disconnect the power supply assembly connector from the system board. See “System board connectors” on page 68.
6. Remove the rear I/O assembly. See “Removing the rear I/O assembly” on page 92.
7. Remove the power connector bracket by removing the five screws **1** that secure it to the main bracket.



8. Remove the power supply assembly cage by removing the two screws as shown in the following illustration.



9. Remove the three screws that secure the power supply assembly to the main bracket.

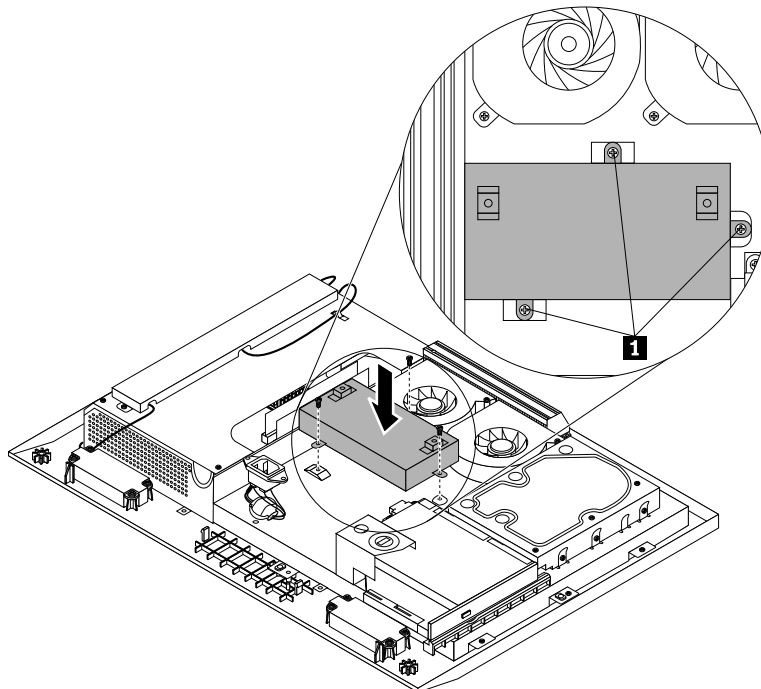


10. Lift the power supply assembly and the cable out of the computer.

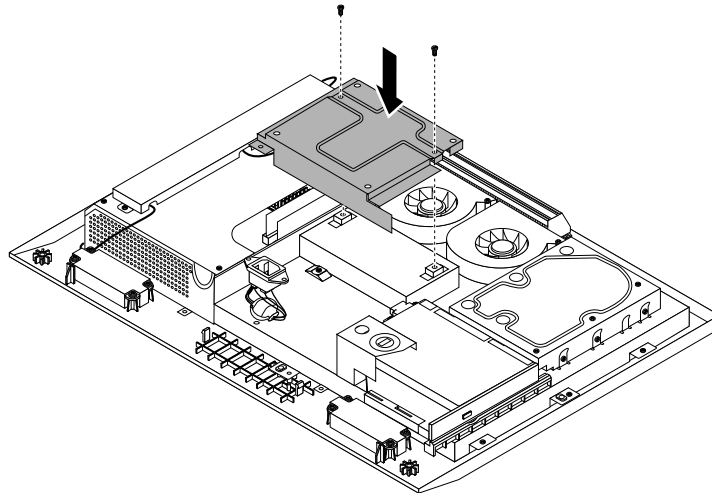
Installing a power supply assembly

To install a power supply assembly, do the following:

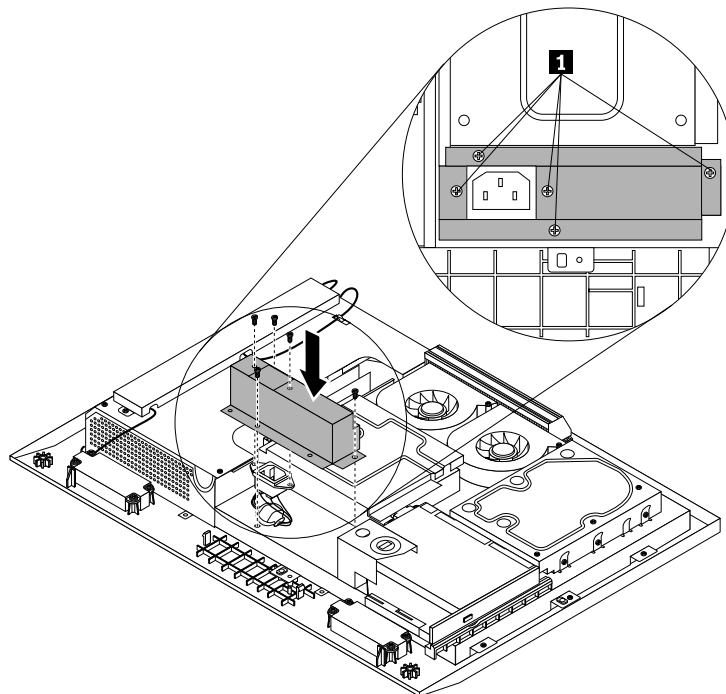
1. Install the new power supply assembly in the main bracket so that the screw holes in the power supply assembly align with the mounting studs in the main bracket.
2. Install and tighten the three screws to secure the power supply assembly to the main bracket.



3. Replace the power supply assembly cage over the power supply assembly so that the screw holes in the power supply assembly cage align with the mounting studs in the power supply assembly.
4. Install and tighten the two screws that attach the power supply assembly cage to the power supply assembly.



5. Route the power supply assembly cable and make sure the screw holes in the cable connector align with those in the cable connector cage.
6. Install and tighten the five screws **1** that secure the power connector bracket to the main bracket.



7. Install the rear I/O assembly. See “Installing a rear I/O assembly” on page 93.
8. Reconnect the power supply assembly cables to the system board.
9. Go to “Completing the FRU installation” on page 108.

Replacing the LCD panel

Attention

Do not open your computer or attempt any repair before reading and understanding the “Important safety information” in the *ThinkCentre Safety and Warranty Guide* that came with your computer. To obtain a copy of the *ThinkCentre Safety and Warranty Guide*, go to:
<http://www.lenovo.com/support>

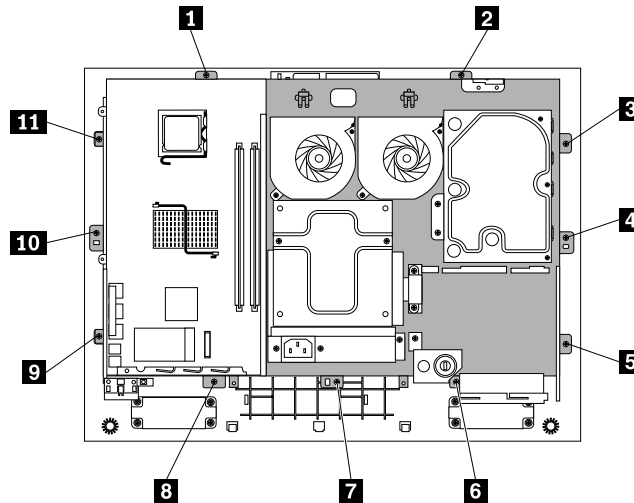
This section provides instructions on how to replace the LCD panel.

Note: To access the LCD panel, other FRUs have to be removed. As you remove each FRU, set it aside, along with the screws for it.

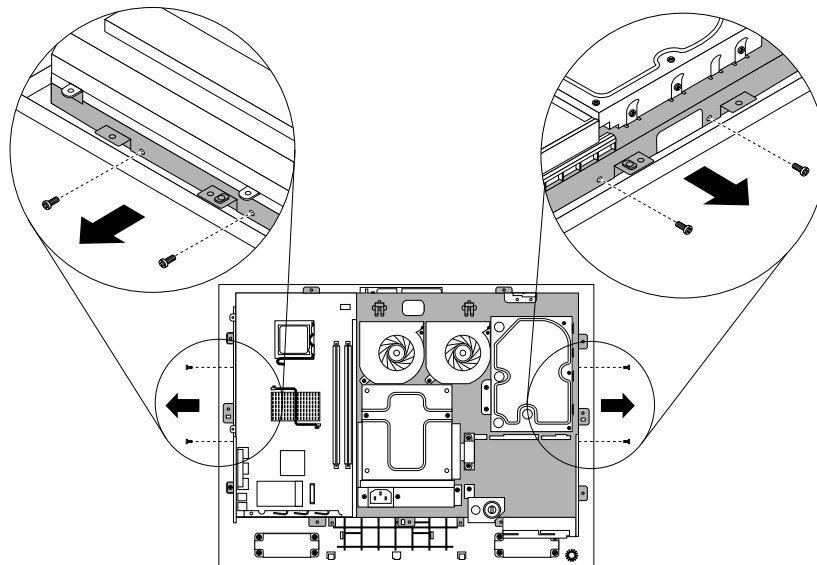
Removing the LCD panel

To remove the LCD panel, do the following:

1. Turn off the computer.
2. Disconnect all cables, power cords, and external options from your computer. See “Rear connectors” on page 65.
3. Place a soft, clean towel or cloth on the desk or surface. Hold the sides of your computer and gently lay it down so that the screen is against the surface and the cover is facing up.
4. Remove the computer cover. See “Removing the computer cover” on page 70.
5. Remove the hard disk drive. See “Replacing the hard disk drive” on page 74.
6. Remove the optical drive. See “Removing the optical drive” on page 77.
7. Open the system board shielding. See “Opening the system board shielding” on page 71.
8. Remove the rear I/O assembly. See “Removing the rear I/O assembly” on page 92.
9. Remove the power supply assembly. See “Removing the power supply assembly” on page 102.
10. Remove the microprocessor and heat sink assembly. See “Removing the microprocessor and heat sink assembly” on page 85.
11. Remove the microprocessor fan assembly. See “Removing the microprocessor fan assembly” on page 81.
12. Remove the memory modules. See “Removing the memory module” on page 79.
13. Remove the system board. See “Removing the system board” on page 88.
14. Remove all 11 screws that secure the main bracket to the front bezel.



15. Remove the four screws that secure the LCD panel to the main bracket.



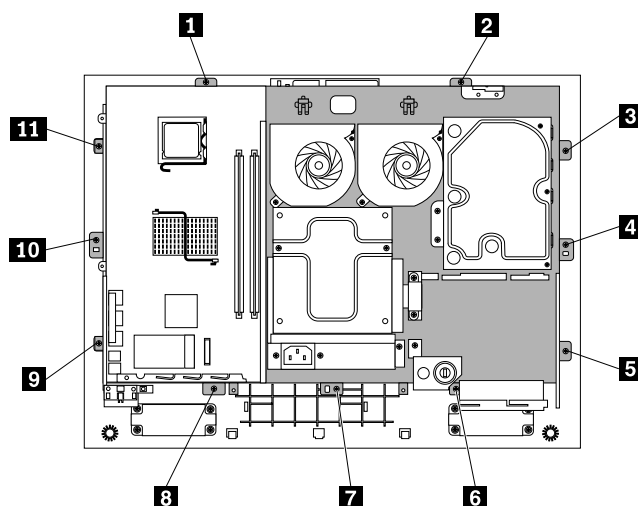
Installing an LCD panel

To install an LCD panel, do the following:

1. Place the main bracket over the LCD panel, make sure the four screw holes in the main bracket align with those in the LCD panel.
2. Reinstall the four screws that secure the LCD panel to the main bracket.

Note: First partially tighten all four screws, and then fully tighten them. This will allow the four screws to be installed correctly.

3. Position the LCD panel and main bracket assembly over the front bezel, making sure the screw holes in the main bracket align with the mounting stands in the front bezel.
4. Reinstall the 11 screws to secure the main bracket to the front bezel.



5. Reinstall the system board. See “Installing a system board” on page 89.
6. Reinstall the microprocessor and heat sink assembly. See “Installing the microprocessor and heat sink assembly” on page 87.
7. Reinstall the memory modules. See “Installing a memory module” on page 80.
8. Reinstall the power supply assembly. See “Installing a power supply assembly” on page 104.
9. Reinstall the optical drive. See “Installing an optical drive” on page 78.
10. Reinstall the hard disk drive. See “Installing a hard disk drive” on page 75.
11. Reinstall the rear I/O assembly. See “Installing a rear I/O assembly” on page 93.
12. Close the system board shielding. See “Closing the system board shielding” on page 72.
13. Reinstall the rear I/O shielding. See “Installing the rear I/O shielding” on page 74.
14. Go to “Completing the FRU installation” on page 108.

Installing a computer wall mount

For information about how to install a computer wall mount, see the documentation that came with your computer wall mount.

Note: When installing a computer wall mount, make sure that you leave at least a 60 mm (2.36 inches) space between the wall and your computer for easy access to the connectors on the rear I/O assembly.

Completing the FRU installation

After replacing FRUs, you need to install any removed parts, replace the computer cover, and reconnect any cables, including telephone cords and power cords. Also, depending on the FRU that is replaced, you might need to confirm the updated information in the Setup Utility program.

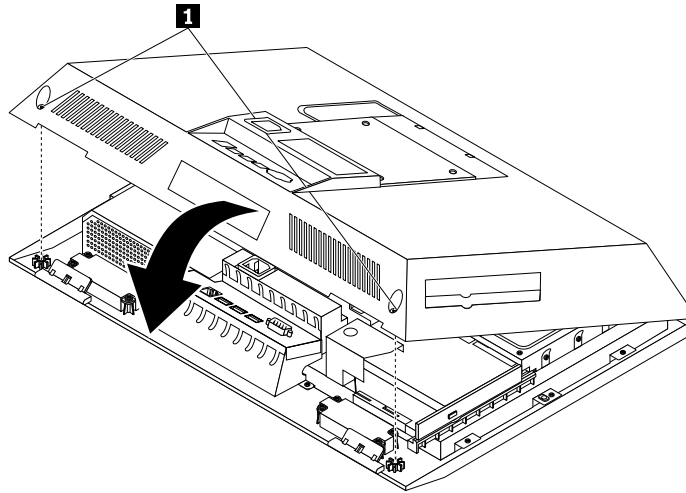
Note: When the power cord is first plugged in, the computer might appear to turn on for a few seconds and then turn off. This is a normal sequence for the computer to initialize.

Installing a computer cover

To install a computer cover, do the following:

1. Replace the two rubber tabs you had previously removed.
2. Replace the cover so that the slots on the top edge of the computer cover align with the tabs on the computer.

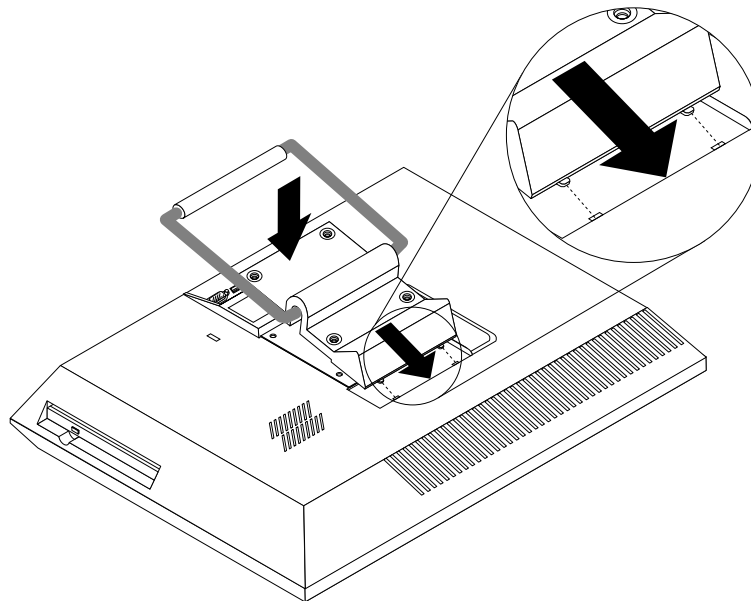
3. Lower and press one end of the computer cover into place first and then close the other end until the computer cover fits snugly on the computer.
4. Use the screwdriver to tighten the two screws **1** until the computer cover is fully installed on the computer.



Installing a computer stand

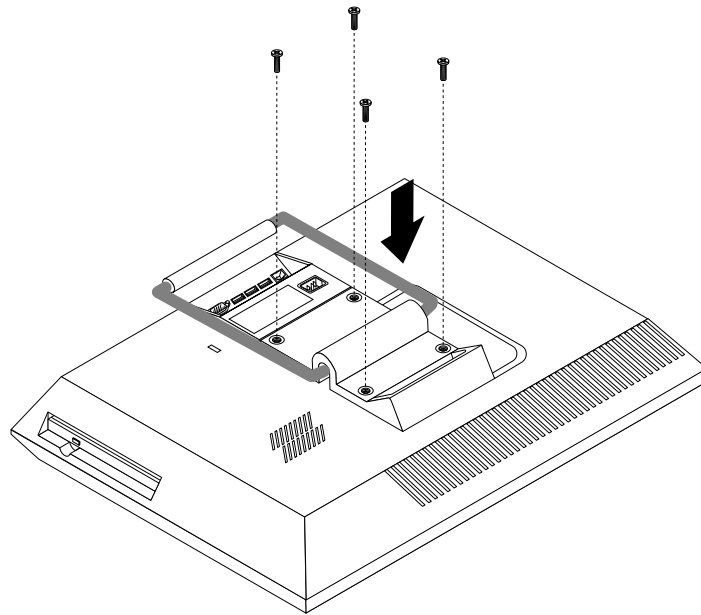
To install a computer stand, do the following:

1. Turn off the computer.
2. Disconnect all cables, power cords, and external options from your computer. See “Rear connectors” on page 65.
3. Place a soft, clean towel or cloth on the desk or surface. Hold the sides of your computer and gently lay it down so that the screen is against the surface and the bottom is facing you.
4. Position the computer stand over the back of the computer and insert the two tabs at the front of the computer stand into the two holes in the cover at an angle.



5. Lower the rear of the computer stand down until it is lying flat and parallel to the computer cover.

6. Use a screwdriver to tighten the four screws until the screws stop turning.



Chapter 9. FRU lists

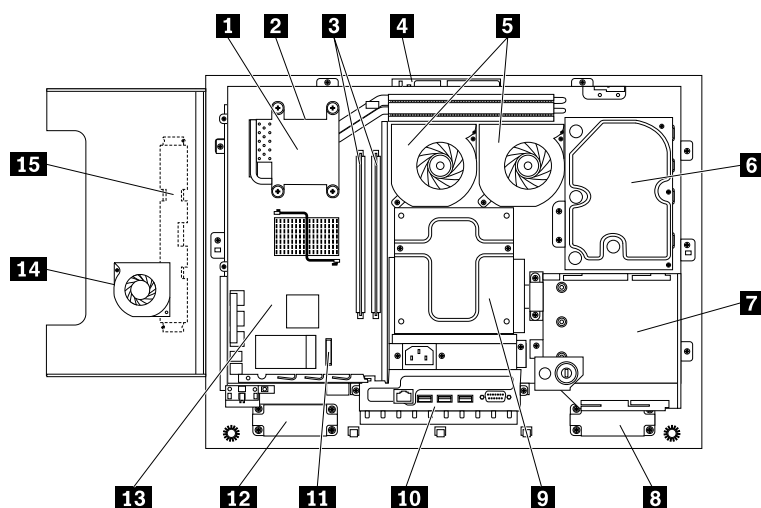
This chapter lists the information on the field replaceable units (FRUs).

Attention: Be sure to read and understand all the safety information before replacing any FRUs.

Note: In the following tables, a customer replaceable unit (CRU) is identified as "1," "2," or "N" in the CRU column. "N" means that the part is not a CRU, "1" means that the part is a Self-service CRU, and "2" means that the part is an Optional-service CRU.

Overall: MT 1165, 1184, and 1186

The following replaceable components are available for the 1165, 1184, and 1186 machine type models.



Item #	FRUs	FRU #	CRU
1	Heat sink for microprocessor <ul style="list-style-type: none"> • MT 1165: all models • MT 1184: all models • MT 1186: all models 	45K6317	N
2	Microprocessor, E7600 3.06GHz 1066M 3M R0 VT 65W <ul style="list-style-type: none"> • MT 1165: D2J D3J E4G F3Q F4Q • MT 1184: • MT 1186: 	71Y3486	N
2	Microprocessor, E7500 2.93GHz 1066M 3M R0 65W <ul style="list-style-type: none"> • MT 1165: C1A C1T D6A D6T C7J C2S B3B B3H B6V B7J E5A E6G E8Q F5Q F7Q G1Q G2Q • MT 1184: A2G • MT 1186: A3U A3F A4S A4Y A6S A6Y 	53Y6654	N

Item #	FRUs	FRU #	CRU
2	Microprocessor, E7400 2.8GHz 1066M 3M R0 65W <ul style="list-style-type: none"> MT 1165: MT 1184: MT 1186: 	53Y6653	N
2	Microprocessor, E6500 2.93GHz 1066M 2M R0 65w <ul style="list-style-type: none"> MT 1165: MT 1184: MT 1186: 	71Y6250	N
2	Microprocessor, E6300 2.8GHz 1066M 2M R0 65w <ul style="list-style-type: none"> MT 1165: MT 1184: MT 1186: 	71Y3484	N
2	Microprocessor, E5400 2.7GHz 800M 2M R0 65W <ul style="list-style-type: none"> MT 1165: B8A B8T ASQ C3S C3M AUQ B1B B1H B2B B2H B4V B5V E7G E3G E9Q F1Q F2Q F8Q F9Q G3Q D7S D7D D7Y D8S D8D D8Y E1S E1D E1Y MT 1184: A1G A3G MT 1186: B5S B5D B5Y 	64Y1075	N
2	Microprocessor, E5300 2.6GHz 800M 2M R0 65W <ul style="list-style-type: none"> MT 1165: A2U A2F A2M A4U A4F ABG ALG AGS AGY AHS AHY AKG APS APY AQG ARG MT 1184: MT 1186: A2U A2F A5S A5Y 	53Y9049	N
2	Microprocessor, E3300 2.5GHz 800M 1M R0 65W <ul style="list-style-type: none"> MT 1165: C4S E2G MT 1184: MT 1186: 	71Y6252	N
2	Microprocessor, E3200 2.4GHz 800M 1M R0 65W <ul style="list-style-type: none"> MT 1165: A1U A1F ADJ A6J AFS AFY AJG C6J C8J D1J AVA AVT MT 1184: MT 1186: A1U A1F 	71Y6251	N
2	Microprocessor, E5500 2.8GHz 800M 2M R0 65W <ul style="list-style-type: none"> MT 1165: MT 1184: MT 1186: 	89Y8073	N
3	Memory slots, 1GB PC2-6400 (800MHz) DDR2 SDRAM <ul style="list-style-type: none"> MT 1165: A1U A1F ADJ A6J ABG ALG AFS AFY C6J C4S AVA AVT E2G D7S D7D D7Y MT 1184: A3G MT 1186: A1U A1F A2 A2U A2F 	41X1080	N

Item #	FRUs	FRU #	CRU
3	Memory slots, 2GB PC2-6400 (800MHz) DDR2 SDRAM <ul style="list-style-type: none"> MT 1165: A2U A2F A2M A3U A3F A3M A4U A4F A5U A5F A7J A8S A8Y A8J AAJ ACG AMG AEG ANG AGS AGY AHS AHY AJG AKG C5S C5D C5Y B8A B8T C1A C1T D5A D5T D6A D6T C7J C8J D1J D2J D3J APS APY AQQ ARG ASQ C2S C3S C3M AUQ B1B B1H B2B B2H B3B B3H B4V B5V B6V B7J E5A E6G E7G E3G E4G E8Q E9Q F1Q F2Q F3Q F4Q F5Q F6Q F7Q F8Q F9Q G1Q G2Q G3Q D8S D8D D8Y E1S E1D E1Y MT 1184: A1G A2G MT 1186: A3U A3F A4S A4Y B4S B4D B4Y A5S A5Y A6S A6Y B5S B5D B5Y 	41X1081	N
4	Web camera 1.3M <ul style="list-style-type: none"> MT 1165: all models MT 1184: all models MT 1186: all models 	45K6289	N
5	Fan for microprocessor (use 2 at same time) <ul style="list-style-type: none"> MT 1165: all models MT 1184: all models MT 1186: all models 	45K6322	N
6	Hard disk drive, SATA 160GB 7200RPM / 3Gb / 8M <ul style="list-style-type: none"> MT 1165: MT 1184: MT 1186: 	40Y9035	N
6	Hard disk drive, SATA 160GB 7200RPM / 3Gb / 8M <ul style="list-style-type: none"> MT 1165: MT 1184: MT 1186: 	53Y6837	N
6	Hard disk drive, SATA 250GB 7200RPM / 3Gb / 8M <ul style="list-style-type: none"> MT 1165: A1U A1F A4U A4F C4SADJ A6J AJG C6J C8J D1J AVA AVT E5A E2G E3G E4G F1Q F2Q F3Q F4Q F5Q F6Q F7Q F8Q MT 1184: MT 1186: A1U A1F 	40Y9036	N
6	Hard disk drive, SATA 250GB 7200RPM / 3Gb / 8M <ul style="list-style-type: none"> MT 1165: A1U A1F A4U A4F C4SADJ A6J AJG C6J C8J D1J AVA AVT E5A E2G E3G E4G F1Q F2Q F3Q F4Q F5Q F6Q F7Q F8Q MT 1184: MT 1186: A1U A1F 	45K0408	N
6	Hard disk drive, SATA 320GB 7200RPM / 3Gb / 8M <ul style="list-style-type: none"> MT 1165: A2U A2F A2M A3U A3F A3M A5U A5F A7J A8S A8Y A8J ABG ALG ACG AMG AEG ANG AFS AFY AGS AGY AHS AHY AKG C5S C5D C5Y B8A B8T C1A C1T D5A D5T D6A D6T C7J D2J D3J APS APY AQQ ARG ASQ C2S C3S C3M AUQ B1B B1H B4V B7J E7G E8Q E9Q D7S D7D D7Y D8S D8D D8Y E1S E1D E1Y MT 1184: A1G A2G A3G MT 1186: A2U A2F A3U A3F A4S A4Y B4S B4D B4Y A5S A5Y A6S A6Y B5S B5D B5Y 	87H4891	N

Item #	FRUs	FRU #	CRU
6	<p>Hard disk drive, SATA 320GB 7200RPM / 3Gb / 8M</p> <ul style="list-style-type: none"> MT 1165: A2U A2F A2M A3U A3F A3M A5U A5F A7J A8S A8Y A8J ABG ALG ACG AMG AEG ANG AFS AFY AGS AGY AHS AHY AKG C5S C5D C5Y B8A B8T C1A C1T D5A D5T D6A D6T C7J D2J D3J APS APY AQQ ARG ASQ C2S C3S C3M AUQ B1B B1H B4V B7J E7G E8Q E9Q D7S D7D D7Y D8S D8D D8Y E1S E1D E1Y MT 1184: A1G A2G A3G MT 1186: A2U A2F A3U A3F A4S A4Y B4S B4D B4Y A5S A5Y A6S A6Y B5S B5D B5Y 	45K0409	N
6	<p>Hard disk drive, SATA 500GB 7200RPM / 3Gb / 16M</p> <ul style="list-style-type: none"> MT 1165: AAJ B2B B2H B3B B3H B5V B6V E6G F9Q G1Q G2Q G3Q MT 1184: MT 1186: 	41X5582	N
6	<p>Hard disk drive, SATA 500GB 7200RPM / 3Gb / 16M</p> <ul style="list-style-type: none"> MT 1165: AAJ B2B B2H B3B B3H B5V B6V E6G F9Q G1Q G2Q G3Q MT 1184: MT 1186: 	45K0410	N
7	<p>Optical drive, SATA slim DVD-ROM</p> <ul style="list-style-type: none"> MT 1165: ADJ A7J AJG AKG C8J D2J B4V F2Q F3Q F6Q F7Q F8Q F9Q G1Q MT 1184: MT 1186: 	71Y5848	N
7	<p>Optical drive, SATA slim Rambo</p> <ul style="list-style-type: none"> MT 1165: A1U A1F A2U A2F A2M A3U A3F A3M A4U A4F A5U A5F A6J A8S A8Y A8J AAJ ABG ALG ACG AMG AEG ANG AFS AFY AGS AGY AHS AHY C5S C5D C5Y B8A B8T C1A C1T D5A D5T D6A D6T C6J C7J D1J D3J APS APY AQQ ARG ASQ C2S C3S C3M C4S B1B B1H B2B B2H B3B B3H B5V B6V B7J E5A E6G E7G E8Q E9Q F1Q F4Q F5Q G2Q G3Q D8S D8D D8Y MT 1184: A1G A2G A3G MT 1186: A1U A1F A2 A2U A2F A3 A3U A3F A4S A4Y B4S B4D B4Y A5S A5Y A6S A6Y 	45K0433	N
9	<p>Power supply, 130w PSU WW, robust,JP</p> <ul style="list-style-type: none"> MT 1165: A1U A1F A2U A2F A2M A3U A3F A3M A4U A4F A5U A5F ADJ A6J A7J A8S A8Y A8J AAJ ABG ALG ACG AMG AEG ANG AFS AFY AGS AGY AHS AHY AJG AKG C5S C5D C5Y B8A B8T C1A C1T D5A D5T D6A D6T C6J C7J C8J D1J D2J D3J APS APY AQQ ARG ASQ C2S C3S C3M C4S AUQ AVA AVT B1B B1H B2B B2H B3B B3H B4V B5V B6V B7J E5A E6G E7G E2G E3G E4G E8Q E9Q F1Q F2Q F3Q F4Q F5Q F6Q F7Q F8Q F9Q G1Q G2Q G3Q D7S D7D D7Y D8S D8D D8Y E1S E1D E1Y MT 1184: MT 1186: A1U A1F A2U A2F A3U A3F A4S A4Y B4S B4D B4Y A5S A5Y A6S A6Y B5S B5D B5Y 	71Y8204	N

Item #	FRUs	FRU #	CRU
10	Rear I/O board <ul style="list-style-type: none"> MT 1165: A1U A1F A2U A2F A2M A3U A3F A3M A4U A4F A5U A5F ADJ A6J A7J A8S A8Y A8J AAJ ABG ALG ACG AMG AEG ANG AFS AFY AGS AGY AHS AHY AJG AKG C5S C5D C5Y B8A B8T C1A C1T D5A D5T D6A D6T C6J C7J C8J D1J D2J D3J APS APY AQG ARG ASQ C2S C3S C3M C4S AUQ AVA AVT B1B B1H B2B B2H B3B B3H B4V B5V B6V B7J E5A E6G E7G E2G E3G E4G E8Q E9Q F1Q F2Q F3Q F4Q F5Q F6Q F7Q F8Q F9Q G1Q G2Q G3Q D7S D7D D7Y D8S D8D D8Y E1S E1D E1Y MT 1184: A1G A1G A3G MT 1186: A1U A1F A2U A2F A3U A3F A4S A4Y B4S B4D B4Y A5S A5Y A6S A6Y B5S B5D B5Y 	03T6011	N
11	Battery, 3V- Lithium <ul style="list-style-type: none"> MT 1165: A1U A1F A2U A2F A2M A3U A3F A3M A4U A4F A5U A5F ADJ A6J A7J A8S A8Y A8J AAJ ABG ALG ACG AMG AEG ANG AFS AFY AGS AGY AHS AHY AJG AKG C5S C5D C5Y B8A B8T C1A C1T D5A D5T D6A D6T C6J C7J C8J D1J D2J D3J APS APY AQG ARG ASQ C2S C3S C3M C4S AUQ AVA AVT B1B B1H B2B B2H B3B B3H B4V B5V B6V B7J E5A E6G E7G E2G E3G E4G E8Q E9Q F1Q F2Q F3Q F4Q F5Q F6Q F7Q F8Q F9Q G1Q G2Q G3Q D7S D7D D7Y D8S D8D D8Y E1S E1D E1Y MT 1184: A1G A1G A3G MT 1186: A1U A1F A2U A2F A3U A3F A4S A4Y B4S B4D B4Y A5S A5Y A6S A6Y B5S B5D B5Y 	45C1566	N
13	System board <ul style="list-style-type: none"> MT 1165: A1U A1F A2U A2F A2M A3U A3F A3M A4U A4F A5U A5F ADJ A6J A7J A8S A8Y A8J AAJ ABG ALG ACG AMG AEG ANG AFS AFY AGS AGY AHS AHY AJG AKG C5S C5D C5Y B8A B8T C1A C1T D5A D5T D6A D6T C6J C7J C8J D1J D2J D3J APS APY AQG ARG ASQ C2S C3S C3M C4S AUQ AVA AVT B1B B1H B2B B2H B3B B3H B4V B5V B6V B7J E5A E6G E7G E2G E3G E4G E8Q E9Q F1Q F2Q F3Q F4Q F5Q F6Q F7Q F8Q F9Q G1Q G2Q G3Q D7S D7D D7Y D8S D8D D8Y E1S E1D E1Y MT 1184: A1G A1G A3G MT 1186: A1U A1F A2U A2F A3U A3F A4S A4Y B4S B4D B4Y A5S A5Y A6S A6Y B5S B5D B5Y 	71Y8202	N
15	Inverter <ul style="list-style-type: none"> MT 1165: A1U A1F A2U A2F A2M A3U A3F A3M A4U A4F A5U A5F ADJ A6J A7J A8S A8Y A8J AAJ ABG ALG ACG AMG AEG ANG AFS AFY AGS AGY AHS AHY AJG AKG C5S C5D C5Y B8A B8T C1A C1T D5A D5T D6A D6T C6J C7J C8J D1J D2J D3J APS APY AQG ARG ASQ C2S C3S C3M C4S AUQ AVA AVT B1B B1H B2B B2H B3B B3H B4V B5V B6V B7J E5A E6G E7G E2G E3G E4G E8Q E9Q F1Q F2Q F3Q F4Q F5Q F6Q F7Q F8Q F9Q G1Q G2Q G3Q D7S D7D D7Y D8S D8D D8Y E1S E1D E1Y MT 1184: A1G A1G A3G MT 1186: A1U A1F A2U A2F A3U A3F A4S A4Y B4S B4D B4Y A5S A5Y A6S A6Y B5S B5D B5Y 	03T6012	N

Mechanical FRUs

The FRUs listed in the following tables are not illustrated.

FRUs	FRU #	CRU
FRU, hinge stand rubber foot <ul style="list-style-type: none"> MT 1165: all models MT 1184: all models MT 1186: all models 	45K6426	N
19 inch 1440x900 LCD panel <ul style="list-style-type: none"> MT 1165: all models MT 1184: all models MT 1186: all models 	89Y0897	N
FRU, front and rear bezel, camera & ODD model <ul style="list-style-type: none"> MT 1165: all models MT 1184: all models MT 1186: all models 	03T9583	N
FRU, speakers left & right <ul style="list-style-type: none"> MT 1165: all models MT 1184: all models MT 1186: all models 	03T9566	N
FRU, power button and LED cable <ul style="list-style-type: none"> MT 1165: all models MT 1184: all models MT 1186: all models 	03T9567	N
FRU, system board fan <ul style="list-style-type: none"> MT 1165: all models MT 1184: all models MT 1186: all models 	03T9568	N
FRU, ODD cover for non-ODD model <ul style="list-style-type: none"> MT 1165: all models MT 1184: all models MT 1186: all models 	03T9569	N
FRU, front bezel, no webcam <ul style="list-style-type: none"> MT 1165: all models MT 1184: all models MT 1186: all models 	03T9570	N

Keyboard and Mouse

Keyboard (Lenovo Preferred Pro USB -- without hub)	FRU #	CRU
US English China <ul style="list-style-type: none"> MT 1165: A1 A1U A2U A2M A3 A3U A3M A4 A4U AD A6 A7 A8 A8Y AB ABG AL ALG AE AEG AN ANG AF AFY AG AGY AH AHY AJ AJG AK AKG B8A C1A D5A AQG ARG ASQ C3M B1H B2H E5A E6G E7G E2G E3G E4G E8Q E9Q F1Q F2Q F3Q F4Q F5Q F6Q F7Q F8Q F9Q G1Q G2Q G3Q MT 1184: A1G A2G A3G 	41A5289	1

Keyboard (Lenovo Preferred Pro USB -- without hub)	FRU #	CRU
<ul style="list-style-type: none"> MT 1186: A1U A2U A3U A4Y 		
Arabic <ul style="list-style-type: none"> MT 1165: AQG ARG E6G E7G E2G E3G E4G MT 1184: A1G A2G A3G MT 1186: 	41A5290	1
A/F <ul style="list-style-type: none"> MT 1165: MT 1184: MT 1186: 	41A5291	1
B/F <ul style="list-style-type: none"> MT 1165: AQG ARG E6G E7G E2G E3G E4G MT 1184: A1G A2G A3G MT 1186: 	41A5292	1
Belgium English <ul style="list-style-type: none"> MT 1165: AQG ARG E6G E7G E2G E3G E4G MT 1184: MT 1186: 	41A5293	1
Brazilian Portuguese <ul style="list-style-type: none"> MT 1165: MT 1184: MT 1186: 	41A5294	1
Bulgarian <ul style="list-style-type: none"> MT 1165: AQG ARG E6G E7G E2G E3G E4G MT 1184: A1G A2G A3G MT 1186: 	41A5295	1
Chinese/US <ul style="list-style-type: none"> MT 1165: B1B B2B B4V B5V MT 1184: MT 1186: 	41A5296	1
Czech (ABB) <ul style="list-style-type: none"> MT 1165: AQG ARG E6G E7G E2G E3G E4G MT 1184: A1G A2G A3G MT 1186: 	41A5297	1
Danish <ul style="list-style-type: none"> MT 1165: AQG ARG E6G E7G E2G E3G E4G MT 1184: A1G A2G A3G MT 1186: 	41A5298	1

Keyboard (Lenovo Preferred Pro USB -- without hub)	FRU #	CRU
Dutch <ul style="list-style-type: none"> MT 1165: AQG ARG E6G E7G E2G E3G E4G MT 1184: A1G A2G A3G MT 1186: 	41A5299	1
French <ul style="list-style-type: none"> MT 1165: AQG ARG E6G E7G E2G E3G E4G MT 1184: A1G A2G A3G MT 1186: 	41A5300	1
French Canadian <ul style="list-style-type: none"> MT 1165: MT 1184: MT 1186: A1U A2U A3U A4Y 	41A5301	1
French Canadian <ul style="list-style-type: none"> MT 1165: MT 1184: MT 1186: A1U A2U A3U A4Y 	41A5302	1
German <ul style="list-style-type: none"> MT 1165: AQG ARG E6G E7G E2G E3G E4G MT 1184: A1G A2G A3G MT 1186: 	41A5303	1
Greek <ul style="list-style-type: none"> MT 1165: AQG ARG E6G E7G E2G E3G E4G MT 1184: A1G A2G A3G MT 1186: 	41A5304	1
Greek/US <ul style="list-style-type: none"> MT 1165: AQG ARG E6G E7G E2G E3G E4G MT 1184: A1G A2G A3G MT 1186: 	41A5305	1
Hebrew <ul style="list-style-type: none"> MT 1165: AQG ARG E6G E7G E2G E3G E4G MT 1184: A1G A2G A3G MT 1186: 	41A5306	1
Hungarian <ul style="list-style-type: none"> MT 1165: AQG ARG E6G E7G E2G E3G E4G MT 1184: A1G A2G A3G MT 1186: 	41A5307	1
Iceland <ul style="list-style-type: none"> MT 1165: AQG ARG E6G E7G E2G E3G E4G MT 1184: A1G A2G A3G MT 1186: 	41A5308	1

Keyboard (Lenovo Preferred Pro USB -- without hub)	FRU #	CRU
Italy <ul style="list-style-type: none"> • MT 1165: AQG ARG E6G E7G E2G E3G E4G • MT 1184: A1G A2G A3G • MT 1186: 	41A5309	1
Japanese <ul style="list-style-type: none"> • MT 1165: C6J C7J C8J D1J D2J D3J B7J • MT 1184: • MT 1186: 	41A5310	1
Korean <ul style="list-style-type: none"> • MT 1165: • MT 1184: • MT 1186: 	41A5311	1
LA Spanish <ul style="list-style-type: none"> • MT 1165: C5S C5D C5Y APS APY C2S C3S C4S D7S D7D D7Y D8S D8D D8Y E1S E1D E1Y • MT 1184: • MT 1186: B4S B4D B4Y A5S A5Y A6S A6Y B5S B5D B5Y 	41A5312	1
Norwegian <ul style="list-style-type: none"> • MT 1165: AQG ARG E6G E7G E2G E3G E4G • MT 1184: A1G A2G A3G • MT 1186: 	41A5313	1
Polish <ul style="list-style-type: none"> • MT 1165: AQG ARG E6G E7G E2G E3G E4G • MT 1184: A1G A2G A3G • MT 1186: 	41A5314	1
Portuguese <ul style="list-style-type: none"> • MT 1165: AQG ARG E6G E7G E2G E3G E4G • MT 1184: A1G A2G A3G • MT 1186: 	41A5315	1
Romanian <ul style="list-style-type: none"> • MT 1165: AQG ARG E6G E7G E2G E3G E4G • MT 1184: A1G A2G A3G • MT 1186: 	41A5316	1
Romanian <ul style="list-style-type: none"> • MT 1165: AQG ARG E6G E7G E2G E3G E4G • MT 1184: A1G A2G A3G • MT 1186: 	41A5317	1
Russian/Cyrillic <ul style="list-style-type: none"> • MT 1165: AQG ARG E6G E7G E2G E3G E4G • MT 1184: A1G A2G A3G • MT 1186: 	41A5318	1

Keyboard (Lenovo Preferred Pro USB -- without hub)	FRU #	CRU
Serbian/Cyrillic <ul style="list-style-type: none"> • MT 1165: AQG ARG E6G E7G E2G E3G E4G • MT 1184: A1G A2G A3G • MT 1186: 	41A5319	1
Slovak <ul style="list-style-type: none"> • MT 1165: AQG ARG E6G E7G E2G E3G E4G • MT 1184: A1G A2G A3G • MT 1186: 	41A5320	1
Spanish <ul style="list-style-type: none"> • MT 1165: AQG ARG E6G E7G E2G E3G E4G • MT 1184: A1G A2G A3G • MT 1186: 	41A5321	1
Swedish/Finnish <ul style="list-style-type: none"> • MT 1165: AQG ARG E6G E7G E2G E3G E4G • MT 1184: A1G A2G A3G • MT 1186: 	41A5322	1
SF/G <ul style="list-style-type: none"> • MT 1165: AQG ARG E6G E7G E2G E3G E4G • MT 1184: A1G A2G A3G • MT 1186: 	41A5323	1
Thailand <ul style="list-style-type: none"> • MT 1165: B8T C1T D5T • MT 1184: • MT 1186: 	41A5324	1
Turkish <ul style="list-style-type: none"> • MT 1165: AQG ARG E6G E7G E2G E3G E4G • MT 1184: A1G A2G A3G • MT 1186: 	41A5325	1
Turkish <ul style="list-style-type: none"> • MT 1165: AQG ARG E6G E7G E2G E3G E4G • MT 1184: A1G A2G A3G • MT 1186: 	41A5326	1
UK English <ul style="list-style-type: none"> • MT 1165: AQG ARG E6G E7G E2G E3G E4G • MT 1184: A1G A2G A3G • MT 1186: 	41A5327	1

Keyboard (Lenovo Preferred Pro USB -- without hub)	FRU #	CRU
US European <ul style="list-style-type: none"> • MT 1165: AQG ARG E6G E7G E2G E3G E4G • MT 1184: A1G A2G A3G • MT 1186: 	41A5328	1
Slovenian <ul style="list-style-type: none"> • MT 1165: • MT 1184: • MT 1186: 	41A5329	1

Keyboard (Lenovo Fingerprint Reader USB)	FRU #	CRU
wireless--US English China <ul style="list-style-type: none"> • MT 1165: A5U ACG AMG D6A B3H • MT 1184: • MT 1186: 	57Y4740	1
wireless--Arabic <ul style="list-style-type: none"> • MT 1165: ACG AMG • MT 1184: • MT 1186: 	57Y4741	1
wireless--A/F <ul style="list-style-type: none"> • MT 1165: ACG AMG • MT 1184: • MT 1186: 	57Y4742	1
wireless--B/F <ul style="list-style-type: none"> • MT 1165: ACG AMG • MT 1184: • MT 1186: 	57Y4743	1
wireless--Belgium English <ul style="list-style-type: none"> • MT 1165: ACG AMG • MT 1184: • MT 1186: 	57Y4744	1
wireless--Brazilian Portuguese <ul style="list-style-type: none"> • MT 1165: • MT 1184: • MT 1186: 	57Y4745	1
wireless--Bulgarian <ul style="list-style-type: none"> • MT 1165: ACG AMG • MT 1184: • MT 1186: 	57Y4746	1

Keyboard (Lenovo Fingerprint Reader USB)	FRU #	CRU
wireless--Chinese/US <ul style="list-style-type: none"> • MT 1165: B3B B6V • MT 1184: • MT 1186: 	57Y4747	1
wireless--Czech (ABB) <ul style="list-style-type: none"> • MT 1165: ACG AMG • MT 1184: • MT 1186: 	57Y4748	1
wireless--Danish <ul style="list-style-type: none"> • MT 1165: ACG AMG • MT 1184: • MT 1186: 	57Y4749	1
wireless--Dutch <ul style="list-style-type: none"> • MT 1165: ACG AMG • MT 1184: • MT 1186: 	57Y4750	1
wireless--French <ul style="list-style-type: none"> • MT 1165: A5F ACG AMG • MT 1184: • MT 1186: 	57Y4751	1
wireless--French Canadian <ul style="list-style-type: none"> • MT 1165: • MT 1184: • MT 1186: 	57Y4752	1
wireless--French Canadian <ul style="list-style-type: none"> • MT 1165: • MT 1184: • MT 1186: 	57Y4753	1
wireless--German <ul style="list-style-type: none"> • MT 1165: ACG AMG • MT 1184: • MT 1186: 	57Y4754	1
wireless--Greek <ul style="list-style-type: none"> • MT 1165: ACG AMG • MT 1184: • MT 1186: 	57Y4755	1
wireless--Greek/US <ul style="list-style-type: none"> • MT 1165: ACG AMG • MT 1184: • MT 1186: 	57Y4756	1

Keyboard (Lenovo Fingerprint Reader USB)	FRU #	CRU
wireless--Hebrew <ul style="list-style-type: none"> • MT 1165: ACG AMG • MT 1184: • MT 1186: 	57Y4757	1
wireless--Hungarian <ul style="list-style-type: none"> • MT 1165: ACG AMG • MT 1184: • MT 1186: 	57Y4758	1
wireless--Iceland <ul style="list-style-type: none"> • MT 1165: ACG AMG • MT 1184: • MT 1186: 	57Y4759	1
wireless--Italy <ul style="list-style-type: none"> • MT 1165: ACG AMG • MT 1184: • MT 1186: 	57Y4760	1
wireless--Japanese <ul style="list-style-type: none"> • MT 1165: AAJ • MT 1184: • MT 1186: 	57Y4761	1
wireless--Korean <ul style="list-style-type: none"> • MT 1165: • MT 1184: • MT 1186: 	57Y4762	1
wireless--LA Spanish <ul style="list-style-type: none"> • MT 1165: • MT 1184: • MT 1186: 	57Y4763	1
wireless--Norwegian <ul style="list-style-type: none"> • MT 1165: ACG AMG • MT 1184: • MT 1186: 	57Y4764	1
wireless--Polish <ul style="list-style-type: none"> • MT 1165: ACG AMG • MT 1184: • MT 1186: 	57Y4765	1
wireless--Portuguese <ul style="list-style-type: none"> • MT 1165: ACG AMG • MT 1184: • MT 1186: 	57Y4766	1

Keyboard (Lenovo Fingerprint Reader USB)	FRU #	CRU
wireless--Russian/Cyrillic <ul style="list-style-type: none"> • MT 1165: ACG AMG • MT 1184: • MT 1186: 	57Y4767	1
wireless--Slovak <ul style="list-style-type: none"> • MT 1165: ACG AMG • MT 1184: • MT 1186: 	57Y4768	1
wireless--Spanish <ul style="list-style-type: none"> • MT 1165: ACG AMG • MT 1184: • MT 1186: 	57Y4769	1
wireless--Swedish/Finnish <ul style="list-style-type: none"> • MT 1165: ACG AMG • MT 1184: • MT 1186: 	57Y4770	1
wireless--SF/G <ul style="list-style-type: none"> • MT 1165: ACG AMG • MT 1184: • MT 1186: 	57Y4771	1
wireless--Thailand <ul style="list-style-type: none"> • MT 1165: D6T • MT 1184: • MT 1186: 	57Y4772	1
wireless--Turkish <ul style="list-style-type: none"> • MT 1165: ACG AMG • MT 1184: • MT 1186: 	57Y4773	1
wireless --UK English <ul style="list-style-type: none"> • MT 1165: ACG AMG • MT 1184: • MT 1186: 	57Y4774	1
wireless--US European <ul style="list-style-type: none"> • MT 1165: ACG AMG • MT 1184: • MT 1186: 	57Y4775	1
wireless--Slovenian <ul style="list-style-type: none"> • MT 1165: ACG AMG • MT 1184: • MT 1186: 	57Y4776	1

Mice	FRU #	CRU
Optical wheel mouse (400DPI, USB) <ul style="list-style-type: none"> MT 1165: A1U A1F A2U A2F A2M A3 A3U A3F A3M A4 A4U A4F A5 A5U A5F AD A6 A7 A8 A8S A8Y AA AB ABG AL ALG AC ACG AM AMG AE AEG AN ANG AF AFS AFY AG AGS AGY AH AHS AHY AJ AJG AK AKG C5S C5D C5Y B8A B8T C1A C1T D5A D5T D6A D6T C6J C7J C8J D1J D2J D3J APS APY AQG ARG ASQ C2S C3S C3M C4S B1B B1H B2B B2H B3B B3H B4V B5V B6V B7J E5A E6G E7G E2G E3G E4G E8Q E9Q F1Q F2Q F3Q F4Q F5Q F6Q F7Q F8Q F9Q G1Q G2Q G3Q D7S D7D D7Y D8S D8D D8Y E1S E1D E1Y MT 1184: A1G A2G A3G MT 1186: A1U A1F A2U A2F A3U A3F A4S A4Y B4S B4D B4Y A5S A5Y A6S A6Y B5S B5D B5Y 	41U3013	1
Optical wheel mouse USB <ul style="list-style-type: none"> MT 1165: A1U A1F A2U A2F A2M A3 A3U A3F A3M A4 A4U A4F A5 A5U A5F AD A6 A7 A8 A8S A8Y AA AB ABG AL ALG AC ACG AM AMG AE AEG AN ANG AF AFS AFY AG AGS AGY AH AHS AHY AJ AJG AK AKG C5S C5D C5Y B8A B8T C1A C1T D5A D5T D6A D6T C6J C7J C8J D1J D2J D3J APS APY AQG ARG ASQ C2S C3S C3M C4S B1B B1H B2B B2H B3B B3H B4V B5V B6V B7J E5A E6G E7G E2G E3G E4G E8Q E9Q F1Q F2Q F3Q F4Q F5Q F6Q F7Q F8Q F9Q G1Q G2Q G3Q D7S D7D D7Y D8S D8D D8Y E1S E1D E1Y 	89Y1273	1

Adapters and miscellaneous FRUs

Adapters and miscellaneous FRUs	FRU #	CRU
Intel WiFi shirley peak 1x2 MC <ul style="list-style-type: none"> MT 1165: A3U A3F A3M A4U A4F A5U A5F A7J A8S A8Y A8J AAJ ACG AMG AEG ANG AFS AFY AGS AGY AHS AHY AJG AKG C5S C5D C5Y B8A B8T C1A C1T D5A D5T D6A D6T C7J APS APY AQG ARG C2S C3S C3M MT 1184: MT 1186: A3U A3F A4S A4Y 	43Y6493	N
19 inch 1440x900 LCD panel <ul style="list-style-type: none"> MT 1165: A1U A1F A2U A2F A2M A3U A3F A3M A4U A4F A5U A5F ADJ A6J A7J A8S A8Y A8J AAJ ABG ALG ACG AMG AEG ANG AFS AFY AGS AGY AHS AHY AJG AKG APS APY E5A E6G E7G E2G E3G E4G MT 1184: MT 1186: CTO A1U A1F A2U A2F A3U A3F A4S A4Y 	89Y0896	N
BCM BCM43225 2x2 MC <ul style="list-style-type: none"> MT 1165: MT 1184: MT 1186: 	71Y8138	N

Power Cords

Power Cords --primary	FRU #	CRU
Line Cord - US Mexico, Philippines, Canada, Venezuela, Columbia, Peru <ul style="list-style-type: none"> MT 1165: A1 A1U A1F A2 A2U A2F A2M A3 A3U A3F A3M A4 A4U A4F A5 A5U A5F AD A6 A7 A8 AA AB AL AC AM AE AN AF AG AH AJ AK C5S C5D B8A B8T C1A C1T D5A D5T D6A D6T APS APY C2S C3S C4S E5A D7S D7D D8S D8D E1S E1D MT 1184: MT 1186: A1U A1F A2U A2F A3U A3F B4S A5S A6S B4D B5S B5D 	41R3184	1
Line Cord - US <ul style="list-style-type: none"> MT 1165: A1 A1U A1F A2 A2U A2F A2M A3 A3U A3F A3M A4 A4U A4F A5 A5U A5F AD A6 A7 A8 AA AB AL AC AM AE AN AF AG AH AJ AK C5S C5D B8A B8T C1A C1T D5A D5T D6A D6T APS APY C2S C3S C4S E5A D7S D7D D8S D8D E1S E1D MT 1184: MT 1186: A1U A1F A2U A2F A3U A3F B4S A5S A6S B4D B5S B5D 	45J9502	1
Line Cord - China <ul style="list-style-type: none"> MT 1165: MT 1184: MT 1186: 	41R3256	1
Line Cord - Japanese and Japanese English <ul style="list-style-type: none"> MT 1165: C6J C7J C8J D1J D2J D3J MT 1184: MT 1186: 	41R3248	1
Line Cord - Japanese and Japanese English <ul style="list-style-type: none"> MT 1165: C6J C7J C8J D1J D2J D3J MT 1184: MT 1186: 	43N9057	1
Line Cord - Brazil (Portuguese) <ul style="list-style-type: none"> MT 1165: MT 1184: MT 1186: 	41R3270	1
Line Cord - LA High Volt (APU) <ul style="list-style-type: none"> MT 1165: D7Y D8Y E1Y MT 1184: MT 1186: B5Y 	41R3176	1
Line Cord - ANZ <ul style="list-style-type: none"> MT 1165: C3M MT 1184: MT 1186: 	41R3196	1
Line Cord - Korea <ul style="list-style-type: none"> MT 1165: MT 1184: MT 1186: 	41R3260	1

Power Cords --primary	FRU #	CRU
Line Cord - UK, Ireland, Singapore, Malaysia, Brunei, Hong Kong <ul style="list-style-type: none"> • MT 1165: • MT 1184: • MT 1186: 	41R3224	1
Line Cord - Taiwan <ul style="list-style-type: none"> • MT 1165: B4V B5V B6V • MT 1184: • MT 1186: 	41R3278	1
Line Cord - Taiwan <ul style="list-style-type: none"> • MT 1165: B4V B5V B6V • MT 1184: • MT 1186: 	45J9503	1
Line Cord - Italy <ul style="list-style-type: none"> • MT 1165: C5S APS APS C2S C3S C4S D7S D7Y D8S D8Y E1S E1Y • MT 1184: A1G A2G A3G • MT 1186: B4S A5S A6S B5S B5Y 	41R3232	1
Line Cord - Indonesia, Laos, Cambodia, Vietnam, Austria, Belgium, Croatia, Czechoslovakia, Finland, France, Germany, Hungary, Netherlands, Norway, Poland, Portugal, Romania, Spain, Sweden <ul style="list-style-type: none"> • MT 1165: A1 A1U A1F A2 A2U A2F A2M A3 A3U A3F A3M A4 A4U A4F A5 A5U A5F AD A6 A7 A8 AA AB AL AC AM AE AN AF AG AH AJ AK B8A C1A D5A D6A E5A • MT 1184: • MT 1186: A1U A1F A2U A2F A3U A3F 	41R3208	1
Line Cord - Denmark <ul style="list-style-type: none"> • MT 1165: AQG ARG E6G E7G E2G E3G E4G • MT 1184: A1G A2G A3G • MT 1186: 	41R3212	1
Line Cord - Switzerland <ul style="list-style-type: none"> • MT 1165: AQG ARG E6G E7G E2G E3G E4G • MT 1184: A1G A2G A3G • MT 1186: 	41R3228	1
Line Cord - Israel <ul style="list-style-type: none"> • MT 1165: AQG ARG E6G E7G E2G E3G E4G • MT 1184: A1G A2G A3G • MT 1186: 	41R3236	1
Line Cord - South Africa <ul style="list-style-type: none"> • MT 1165: A2M A3M A8Y ABG ALG ACG AMG AEG ANG AFY AGY AHY AJG AKG B8A C1A D5A D6A C3M E5A • MT 1184: A1G A2G A3G • MT 1186: 	41R3220	1

Power Cords --primary	FRU #	CRU
Line Cord - India <ul style="list-style-type: none"> • MT 1165: ASQ E8Q E9Q F1Q F2Q F3Q F4Q F5Q F6Q F7Q F8Q F9Q G1Q G2Q G3Q • MT 1184: • MT 1186: 	41R3341	1
Line Cord - Thailand <ul style="list-style-type: none"> • MT 1165: • MT 1184: • MT 1186: 	43N9029	1

Power Cords --secondary	FRU #	CRU
Line Cord - US <ul style="list-style-type: none"> • MT 1165: A1 A1U A1F A2 A2U A2F A2M A3 A3U A3F A3M A4 A4U A4F A5 A5U A5F AD A6 A7 A8 AA AB AL AC AM AE AN AF AG AH AJ AK C5S C5D B8A B8T C1A C1T D5A D5T D6A D6T APS APY C2S C3S C4S E5A D7S D7D D8S D8D E1S E1D • MT 1184: • MT 1186: A1U A1F A2U A2F A3U A3F B4S A5S A6S B4D B5S B5 	41R3185	1
Line Cord - China <ul style="list-style-type: none"> • MT 1165: • MT 1184: • MT 1186: 	41R3257	1
Line Cord - Brazil (Portuguese) <ul style="list-style-type: none"> • MT 1165: • MT 1184: • MT 1186: 	41R3271	1
Line Cord - LA High Volt (APU) <ul style="list-style-type: none"> • MT 1165: D7Y D8Y E1Y • MT 1184: • MT 1186: B5Y 	41R3177	1
Line Cord - Korea <ul style="list-style-type: none"> • MT 1165: • MT 1184: • MT 1186: 	41R3261	1
Line Cord - Taiwan <ul style="list-style-type: none"> • MT 1165: • MT 1184: • MT 1186: 	41R3279	1
Line Cord - Denmark <ul style="list-style-type: none"> • MT 1165: AQG ARG E6G E7G E2G E3G E4G • MT 1184: A1G A2G A3G • MT 1186: A4Y 	41R3213	1

Power Cords --secondary	FRU #	CRU
Line Cord - South Africa <ul style="list-style-type: none"> • MT 1165: AQG ARG E6G E7G E2G E3G E4G • MT 1184: A1G A2G A3G • MT 1186: A4Y 	41R3221	1
Line Cord - India <ul style="list-style-type: none"> • MT 1165: • MT 1184: • MT 1186: 	41R3175	1
Line Cord - Japanese and Japanese English <ul style="list-style-type: none"> • MT 1165: C6J C7J C8J D1J D2J D3J • MT 1184: • MT 1186: 	41R3249	1
Line Cord - Japanese and Japanese English <ul style="list-style-type: none"> • MT 1165: C6J C7J C8J D1J D2J D3J • MT 1184: • MT 1186: 	43N9058	1
Line Cord - ANZ <ul style="list-style-type: none"> • MT 1165: • MT 1184: • MT 1186: 	41R3197	1
Line Cord - Hong Kong <ul style="list-style-type: none"> • MT 1165: B1B B1H B2B B2H B3B B3H • MT 1184: • MT 1186: 	41R3225	1
Line Cord - Brazil <ul style="list-style-type: none"> • MT 1165: • MT 1184: • MT 1186: 	43N9044	1
Line Cord - Italy, Chile <ul style="list-style-type: none"> • MT 1165: C5S APS APS C2S C3S C4S D7S D7Y D8S D8Y E1S E1Y • MT 1184: A1G A2G A3G • MT 1186: B4S A5S A6S B5S B5Y 	41R3233	1
Line Cord - Switzerland <ul style="list-style-type: none"> • MT 1165: A8Y AFY AGY AHY • MT 1184: A1G A2G A3G • MT 1186: A4Y 	41R3229	1
Line Cord - Israel <ul style="list-style-type: none"> • MT 1165: A8Y AFY AGY AHY APS APY • MT 1184: A1G A2G A3G • MT 1186: A4Y 	41R3237	1

Power Cords --secondary	FRU #	CRU
Line Cord - South Africa <ul style="list-style-type: none"> MT 1165: A2M A3M A8Y ABG ALG ACG AMG AEG ANG AFY AGY AHY AJG AKG B8A C1A D5A D6A E6G E7G E2G E3G E4G MT 1184: A1G A2G A3G MT 1186: 	41R3220	1
Line Cord - India <ul style="list-style-type: none"> MT 1165: ASQ E8Q E9Q F1Q F2Q F3Q F4Q F5Q F6Q F7Q F8Q F9Q G1Q G2Q G3Q MT 1184: MT 1186: 	41R3341	1
Line Cord - Thailand <ul style="list-style-type: none"> MT 1165: MT 1184: MT 1186: 	43N9029	1
Line Cord - Indonesia, Laos, Cambodia, Vietnam, Austria, Belgium, Croatia, Czechoslovakia, Finland, France, Germany, Hungary, Netherlands, Norway, Poland, Portugal, Romania, Spain, Sweden <ul style="list-style-type: none"> MT 1165: A1 A1U A1F A2 A2U A2F A2M A3 A3U A3F A3M A4 A4U A4F A5 A5U A5F AD A6 A7 A8 AA AB AL AC AM AE AN AF AG AH AJ AK B8A C1A D5A D6A E5A MT 1184: MT 1186: A1U A1F A2U A2F A3U A3F 	41R3209	1
Line Cord - Thailand <ul style="list-style-type: none"> MT 1165: MT 1184: MT 1186: 	43N9030	1

Recovery discs

XP Professional Recovery CD

Note: The Windows XP Professional recovery DVDs are available only for models with a valid Microsoft Windows XP Professional certificate of authenticity (COA) affixed to the system. Due to a Microsoft licensing limitation, if a model came with Windows XP Professional preinstalled from the factory, but has either a Windows 7 or Windows Vista COA affixed to the system, that model is eligible only for recovery DVDs that match the operating system specified on the COA.

XP Pro Recovery CD	FRU #	CRU
US English <ul style="list-style-type: none"> MT 1165: A2 A2U A2M A3 A3U A3M MT 1184: MT 1186: A2U A3U 	71Y8764	1
French <ul style="list-style-type: none"> MT 1165: A2U A3U MT 1184: MT 1186: A2U A3U 	71Y8761	1

XP Pro Recovery CD	FRU #	CRU
Spanish <ul style="list-style-type: none"> • MT 1165: • MT 1184: • MT 1186: 	71Y8763	1
Japanese <ul style="list-style-type: none"> • MT 1165: • MT 1184: • MT 1186: 	71Y8762	1
Hebrew <ul style="list-style-type: none"> • MT 1165: • MT 1184: • MT 1186: 	89Y8074	1
Russia <ul style="list-style-type: none"> • MT 1165: • MT 1184: • MT 1186: 	03T0000	1

Windows 7 Home Basic 32 Recovery CD

Windows 7 Home Basic 32	FRU #	CRU
Spanish <ul style="list-style-type: none"> • MT 1165: • MT 1184: • MT 1186: A6S A6Y 	71Y8771	1

Windows 7 Home Premium 32 Recovery CD

Windows 7 Home Premium 32	FRU #	CRU
English <ul style="list-style-type: none"> • MT 1165: ASQ B1H • MT 1184: A3G • MT 1186: 	71Y8775	1
French <ul style="list-style-type: none"> • MT 1165: A1U A4U A5U • MT 1184: A3G • MT 1186: A1U 	71Y8772	1
Japanese <ul style="list-style-type: none"> • MT 1165: • MT 1184: • MT 1186: 	71Y8773	1

Windows 7 Home Premium 32	FRU #	CRU
Spanish <ul style="list-style-type: none"> • MT 1165: C4S • MT 1184: • MT 1186: 	71Y8774	1
Nordics (EN DK FI NO SV) <ul style="list-style-type: none"> • MT 1165: • MT 1184: A3G • MT 1186: 	71Y8776	1
C&L EMEA (EN FR GR IT NL) <ul style="list-style-type: none"> • MT 1165: • MT 1184: A3G • MT 1186: 	71Y8777	1
English for India <ul style="list-style-type: none"> • MT 1165: • MT 1184: • MT 1186: 	89Y8351	1
Chinese Tradition <ul style="list-style-type: none"> • MT 1165: • MT 1184: • MT 1186: 	89Y8095	1
Czech <ul style="list-style-type: none"> • MT 1165: • MT 1184: A3G • MT 1186: 	89Y8096	1
Greek <ul style="list-style-type: none"> • MT 1165: • MT 1184: A3G • MT 1186: 	89Y8097	1
Hebrew <ul style="list-style-type: none"> • MT 1165: • MT 1184: A3G • MT 1186: 	89Y8098	1
Hong Kong <ul style="list-style-type: none"> • MT 1165: • MT 1184: • MT 1186: 	89Y8099	1
Turkish <ul style="list-style-type: none"> • MT 1165: • MT 1184: A3G • MT 1186: 	89Y8100	1

Windows 7 Professional 32 Recovery CD

Windows 7 Professional 32	FRU #	CRU
US English <ul style="list-style-type: none"> MT 1165: AD A6 A7 A8 A8Y AA AE AEG AN ANG AH AHY D5A D5T D6A D6T AQG ARG C3M B2H B3H E6G E7G E2G E3G E4G F7Q F8Q F9Q G1Q G2Q G3Q MT 1184: A1G A2G MT 1186: 	71Y8768	1
French <ul style="list-style-type: none"> MT 1165: A8Y AHY E6G E7G E2G E3G E4G MT 1184: A1G A2G MT 1186: 	71Y8765	1
Japanese <ul style="list-style-type: none"> MT 1165: C6J C7J C8J D1J D2J D3J MT 1184: MT 1186: 	71Y8766	1
Spanish <ul style="list-style-type: none"> MT 1165: A8Y AHY C5S C5D C5Y APS APY C2S C3S MT 1184: MT 1186: B4S B4D B4Y A5S A5Y 	71Y8767	1
C&L Nordics (EN DK FI NO SV) <ul style="list-style-type: none"> MT 1165: AQG ARG E6G E7G E2G E3G E4G MT 1184: A1G A2G MT 1186: 	71Y8769	1
EMEA (EN FR GR IT NL) <ul style="list-style-type: none"> MT 1165: AQG ARG E6G E7G E2G E3G E4G MT 1184: A1G A2G MT 1186: 	71Y8770	1
English for India <ul style="list-style-type: none"> MT 1165: MT 1184: MT 1186: 	89Y8350	1
Chinese Traditional <ul style="list-style-type: none"> MT 1165: MT 1184: MT 1186: 	89Y8077	1
Czech <ul style="list-style-type: none"> MT 1165: AQG ARG E6G E7G E2G E3G E4G MT 1184: A1G A2G MT 1186: 	89Y8078	1

Windows 7 Professional 32	FRU #	CRU
Greek <ul style="list-style-type: none"> • MT 1165: AQG ARG E6G E7G E2G E3G E4G • MT 1184: A1G A2G • MT 1186: 	89Y8079	1
Hebrew <ul style="list-style-type: none"> • MT 1165: AQG ARG E6G E7G E2G E3G E4G • MT 1184: A1G A2G • MT 1186: 	89Y8080	1
Hong Kong <ul style="list-style-type: none"> • MT 1165: • MT 1184: • MT 1186: 	89Y8081	1
Russia <ul style="list-style-type: none"> • MT 1165: AQG ARG E6G E7G E2G E3G E4G • MT 1184: • MT 1186: 	89Y6555	1
Turkish <ul style="list-style-type: none"> • MT 1165: AQG ARG E6G E7G E2G E3G E4G • MT 1184: A1G A2G • MT 1186: 	89Y8082	1

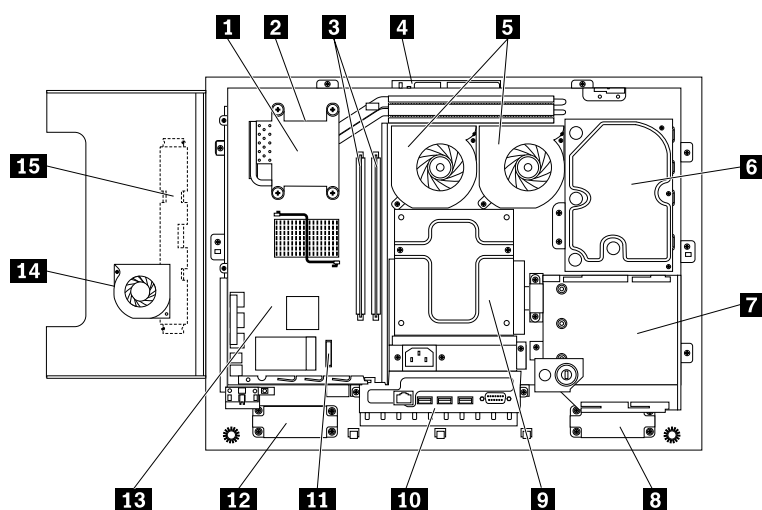
Windows 7 Professional 64 Recovery CD

Windows 7 Professional 64	FRU #	CRU
US English <ul style="list-style-type: none"> • MT 1165: AC ACG AM AMG • MT 1184: • MT 1186: 	71Y8781	1
French <ul style="list-style-type: none"> • MT 1165: • MT 1184: • MT 1186: 	71Y8778	1
Japanese <ul style="list-style-type: none"> • MT 1165: • MT 1184: • MT 1186: 	71Y8779	1
Spanish <ul style="list-style-type: none"> • MT 1165: • MT 1184: • MT 1186: 	71Y8780	1

Windows 7 Professional 64	FRU #	CRU
C&L Nordics (EN DK FI NO SV) <ul style="list-style-type: none"> MT 1165: MT 1184: MT 1186: 	71Y8782	1
C&L EMEA (EN FR GR IT NL) <ul style="list-style-type: none"> MT 1165: MT 1184: MT 1186: 	71Y8783	1
English for India <ul style="list-style-type: none"> MT 1165: MT 1184: MT 1186: 	89Y8352	1
Hebrew <ul style="list-style-type: none"> MT 1165: MT 1184: MT 1186: 	89Y8101	1

Overall: MT 0401, 0421, 0994, and 2565

The following replaceable components are available for the 0401, 0994, and 2565 machine type models.



Item #	FRUs	FRU #	CRU
1	Microprocessor heat sink <ul style="list-style-type: none"> MT 0401: all models MT 0994: all models MT 0421, 2565: all models 	45K6317	N
2	Microprocessor, E8400 3.00GHz 1333M 6M E0 65W <ul style="list-style-type: none"> MT 0401: T2M U4H V3P U7G V9G MT 0994: MT 0421, 2565: A8S A8D A9Y A9S A8D A9Y B1S B1D B1Y B2S B2D B2Y 	45C7736	N
2	Microprocessor, E7600 3.06GHz 1066M 3M R0 VT 65W <ul style="list-style-type: none"> MT 0401: AFM K3B K4B G3J K9Q L2Q N4Q N6Q P6M P7B P1Q P1B N8A N8T N8B Q4Q Q9Q R8B P1A P1T Q4A Q4T U8G W6J W7J Y5G MT 0994: MT 0421, 2565: B9S B9D B9Y B3S B3D B3Y 	71Y3486	N
2	Microprocessor, E7500 2.93GHz 1066M 3M R0 65W <ul style="list-style-type: none"> MT 0401: B7B B8B BDG A5U A5F A5S BHA BHT BKA BKT ADM AKJ ALJ ALJ AMJ ANJ A9G C6G BMQ BNQ BSV C2V CUG CVG CPV F6P F7J G1A G2A G9J H1J J6Q J7Q J9Q L7Q L8Q M2Q M7Q M8Q N1Q P8J P9J R5G Q3Q Q6Q Q8Q R7U R7F R7S Q3A Q3T R5U R5F R5S U3U U3F U3S V4P V6G W1J W2J W3J Y9J Z3G Z4G Z5P ZBP MT 0994: A3G A5G C1G C2G C3G C4G MT 0421, 2565: A5S A5Y A1S A1Y A3S A3Y A7U A7F A7S C1S C1D C1Y C3S C3D C3Y C5U C5F C5S C8S C8D C8Y D1U 	53Y6654	N
2	Microprocessor, E7400 2.80GHz 1066M 3M R0 65W <ul style="list-style-type: none"> MT 0401: MT 0994: A6G MT 0421, 2565: 	53Y6653	N
2	Microprocessor, E6600 3.06GHz 1066M 2M R0 65w <ul style="list-style-type: none"> MT 0401: K6B K7B R1Q V8G Y6B Y7B MT 0994: MT 0421, 2565: 	89Y0198	N
2	Microprocessor, E6500 2.93GHz 1066M 2M R0 65w <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: B7S B7D B7Y B8S B8D B8Y 	71Y6250	N
2	Microprocessor, E6300 2.8GHz 1066M 2M R0 65w <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	71Y3484	N
2	Microprocessor, E5500 2.8GHz 800M 2M R0 65W <ul style="list-style-type: none"> MT 0401: B5B B6B APU APF AQM ASG B1S B1Y B2S B2Y B3S B3Y C3S C3Y C5G BQV C1V CRB CSB CWGCQV B1P C5P F3P F5P R3Q R4Q MT 0994: A2G A4G MT 0421, 2565: B4S B4Y A4S A4Y A6U A6F A6S 	89Y8073	N

Item #	FRUs	FRU #	CRU
2	Microprocessor, E5400 2.70GHz 800M 2M R0 65W <ul style="list-style-type: none"> MT 0401: BCG A3U A3F A3S BGA BGT BJA BJT AAS AAY ABS ABY ACS ACY A1M A8G A6Q BLQ BPQ CNG F1Q F2Q J4Q J5Q J8Q K1Q L5Q L6Q L9Q M1Q M3Q M4Q M5Q M6Q M9Q N2Q N7A N7T MT 0994: A1G MT 0421, 2565: A2S A2Y 	64Y1075	N
2	Microprocessor, E3400 2.60GHz 800M 1M R0 65W <ul style="list-style-type: none"> MT 0401: F8J F9J G4J G5J G6J G7J G8J P5B Q1J R2Q R9J T1M T6G U1U U1F U1S U5S U5D U5Y V2P W4J W5J W8J W9J Y1J Z1J Z2J MT 0994: MT 0421, 2565: C7S C7D C7Y 	89Y0207	N
2	Microprocessor, E3300 2.50GHz 800M 1M R0 65W <ul style="list-style-type: none"> MT 0401: A2U A2F A2S AUJ AGJ AHJ AJJ A7G C4G F4P J1G J2G MT 0994: MT 0421, 2565: 	71Y6252	N
2	Microprocessor, E3200 2.40GHz 800M 1M R0 65W <ul style="list-style-type: none"> MT 0401: B9G BBG BFA BFT MT 0994: MT 0421, 2565: 	71Y6251	N
2	Microprocessor, Cel 450 2.20GHz 800M 512K A1 35W <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	46R9514	N
2	Microprocessor, E5300 2.60GHz 800M 2M R0 65W <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	53Y9049	N
2	Microprocessor, E6800 3.33GHz 1066M 2M R0 65w <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	03T6006	N
2	Microprocessor, E6700 3.20GHz 1066M 2M R0 65w <ul style="list-style-type: none"> MT 0401: H3A H3T H5A H5T P3B P4B S9A S9T T3A T3T Y8B MT 0994: MT 0421, 2565: 	03T6009	N
2	Microprocessor, E5700 3.0GHz 800M 2M R0 65W <ul style="list-style-type: none"> MT 0401: G6G G6M K2B K5B H2A H2T H4A H4T K8Q L1Q H6V H7V H8V H9B H9V L3V L4S L4D L4Y N3Q N5Q N9B P2B Q2Q Q5Q Q7Q R6U R6F R6S H6A H6Q H6T V5P MT 0994: A7G A8G A9G MT 0421, 2565: B5S B5D B5Y B6S B6D B6Y C2S C2D C2Y 	03T6007	N

Item #	FRUs	FRU #	CRU
2	Microprocessor, E3500 2.7GHz 800M 1M R0 65W <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	03T6008	N
2	Microprocessor, E5800 3.2GHz 800M 2M R0 65W <ul style="list-style-type: none"> MT 0401: S1Q S2Q S3Q S3B S4Q S5M S6B S7B T5B U2U U2F U2S T7V T8V T9V U6U U6F U6S U9G V1G V1V V7G S6G Y2G Y3G Y4G Z8G Z9G ZAP MT 0994: B1G B2G C5G C6G MT 0421, 2565: C4S C4D C4Y C6U C9U 	03T9010	N
3	Memory modules, 1GB PC3-8500 1066MHz DDR3 UDIMM <ul style="list-style-type: none"> MT 0401: B9G BBG A2U A2F A2S A3U A3F A3S BFA BFT APU APF AUJ AGJ AHJ F1Q F2Q G6J G7J J4Q J5Q J6Q K8Q K9Q M4Q M5Q M6Q M7Q N3Q N4Q Q1J R2Q R3Q R4Q U5S U5D U5Y W4J W5J MT 0994: MT 0421, 2565: 	46R3322	1
3	Memory modules, 2GB PC3-8500 1066MHz DDR3 UDIMM <ul style="list-style-type: none"> MT 0401: B5B B6B B7B B8B BCG BDG A5U A5F A5S BGA BGT BHA BHT BJA BJT BKA BKT AQM ASG B1S B1Y B2S B2Y B3S B3Y AAS AAY ABS ABY ACS ACY ADM AFM AJJ AKJ ALJ ALJ AMJ ANJ C3S C3Y A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ BQV BSV C1V C2V CNG CRB CSB CUG CVG CWG CPV CQV B1P C5P F3P F4P F5P F6P F7J F8J F9J G6G G6M K2B K3B K4B K5B K6B K7B G1A G2A H2A H2T H3A H3T H4A H4T H5A H5T G3J G4J G5J G8J G9J H1J J3G J1G J2G J7Q J8Q J9Q K1Q L1Q L2Q H6V H7V H8V H9B H9V L3V L4S L4D L4Y L5Q L6Q L7Q L8Q L9Q M1Q M2Q M3Q M8Q M9Q N1Q N2Q N5Q N6Q P6M P7B N9B P1Q P1B P2B P3B P4B P5B N7A N7T N8A N8T N8B P8J P9J R5G Q2Q Q3Q Q4Q Q5Q Q6Q Q7Q Q8Q Q9Q R1Q R6U R6F R6S R7U R7F R7S R8B R9J S1Q S2Q S3Q S3B S4Q S5M S6B S7B S9A T1M T2M H6A H6Q H6T P1A P1T Q3A Q3T Q4A Q4T S9T T5B T3A T3T R5U R5F R5S T6G U1U U1F U1S U2U U2F U2S U3U U3F U3S T7V T8V T9V U4H U6U U6F U6S V2P V3P V4P V5P U7G U8G U9G V1G V1V V6G V7G S6G V8G V9G W1J W2J W3J W6J W7J W8J W9J Y1J Y2G Y3G Y4G Y5G Y6B Y7B Y8B Y9J Z1J Z2J Z3G Z4G Z5P Z8G Z9G ZAP ZBP MT 0994: A1G A2G A3G A4G A5G A6G A7G A8G A9G B1G B2G C1G C2G C3G C4G C5G C6G MT 0421, 2565: B4S B4Y A4S A4Y A5S A5Y A1S A1Y A2S A2Y A3S A3Y A6U A6F A6S A7U A7F A7S A8S A8D A8Y A9S A9D A9Y B1S B1D B1Y B2S B2D B2Y B5S B5D B5Y B6S B6D B6Y B7S B7D B7Y B8S B8D B8Y B9S B9D B9Y B3S B3D B3Y C1S C1D C1Y C2S C2D C2Y C3S C3D C3Y C4S C4D C4Y C5U C5F C5S C6U C7S C7D C7Y C8S C8D C8Y C9U D1U 	46R3323	1
3	Memory modules, 1GB PC3-10600 1333MHz DDR3 UDIMM <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	64Y6648	1
3	Memory modules, 2GB PC3-10600 1333MHz DDR3 UDIMM <ul style="list-style-type: none"> MT 0401: MT 0994: C1G C2G C3G C4G C5G C6G MT 0421, 2565: 	64Y6649	1

Item #	FRUs	FRU #	CRU
4	Webcam kit <ul style="list-style-type: none"> MT 0401: all models MT 0994: all models MT 0421, 2565: all models 	45K6289	N
5	Microprocessor fan (use 2 at same time) <ul style="list-style-type: none"> MT 0401: all models MT 0994: all models MT 0421, 2565: all models 	45K6322	N
6	Hard disk drive, SATA 160GB 7200RPM / 3Gb / 8M <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	40Y9035	2
6	Hard disk drive, SATA 160GB 7200RPM / 3Gb / 8M <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	53Y6837	2
6	Hard disk drive, SATA 250GB 7200RPM / 3Gb / 8M <ul style="list-style-type: none"> MT 0401: A2U A2F A2S BFA BFT F8J J1G J2G P6M P9J Q1J T1M T6G W4J W5J Y1J Z1J Z2J Z3G MT 0994: MT 0421, 2565: 	40Y9036	2
6	Hard disk drive, SATA 250GB 7200RPM / 3Gb / 8M <ul style="list-style-type: none"> MT 0401: A2U A2F A2S BFA BFT F8J J1G J2G P6M P9J Q1J T1M T6G W4J W5J Y1J Z1J Z2J Z3G MT 0994: MT 0421, 2565: 	45K0408	2
6	Hard disk drive, SATA 320GB 7200RPM / 3Gb / 8M <ul style="list-style-type: none"> MT 0401: B5B B7B B9G BBG BCG BDG A3U A3F A3S A5U A5F A5S BGA BGT BHA BHT BJA BJT BKA BKT CNG CRB CUG CVG CWG CPV CQV F1Q F2Q B1P C5P F3P F4P F5P F6P F7J F9J G6G G6M K5B K6B G1A H2A H2T H3A H3T H4A H4T H5A H5T J3G J4Q J5Q J6Q J7Q J8Q J9Q K1Q K8Q K9Q L1Q L2Q H7V L4S L4D L4Y L5Q L6Q L7Q L8Q L9Q M1Q M2Q M3Q M4Q M5Q M6Q M7Q M8Q M9Q N1Q N2Q N3Q N4Q N5Q N6Q P7B P5B N7A N7T N8A N8T N8B P8J R2Q R9J S5M S6B U1U U1F U1S U2U U2F U2S U5S U5D U5Y U6U U6F U6S V2P V3P V4P V5P U7G U8G U9G V1G V1V V6G V7G S6G V8G W1J W2J W6J W7J Y2G Y3G Y4G Z5P Z8G Z9G MT 0994: A1G A6G MT 0421, 2565: B4S B4Y A4S A4Y A5S A5Y A1S A1Y A2S A2Y A3S A3Y A6U A6F A6S A7U A7F A7S A8S A8D A8Y A9S A9D A9Y B1S B1D B1Y B2S B2D B2Y B5S B5D B5Y B6S B6D B6Y B7S B7D B7Y B8S B8D B8Y B9S B9D B9Y B3S B3D B3Y C1S C1D C1Y C5U C5F C5S C6U C9U D1U 	87H4891	2

Item #	FRUs	FRU #	CRU
6	<p>Hard disk drive, SATA 320GB 7200RPM / 3Gb / 8M</p> <ul style="list-style-type: none"> MT 0401: B5B B7B B9G BBG BCG BDG A3U A3F A3S A5U A5F A5S BGA BGT BHA BHT BJA BJT BKA BKT CNG CRB CUG CVG CWG CPV CQV F1Q F2Q B1P C5P F3P F4P F5P F6P F7J F9J G6G G6M K5B K6B G1A H2A H2T H3A H3T H4A H4T H5A H5T J3G J4Q J5Q J6Q J7Q J8Q J9Q K1Q K8Q K9Q L1Q L2Q H7V L4S L4D L4Y L5Q L6Q L7Q L8Q L9Q M1Q M2Q M3Q M4Q M5Q M6Q M7Q M8Q M9Q N1Q N2Q N3Q N4Q N5Q N6Q P7B P5B N7A N7T N8A N8T N8B P8J R2Q R9J S5M S6B U1U U1F U1S U2U U2F U2S U5S U5D U5Y U6U U6F U6S V2P V3P V4P V5P U7G U8G U9G V1G V1V V6G V7G S6G V8G W1J W2J W6J W7J Y2G Y3G Y4G Z5P Z8G Z9G MT 0994: A1G A6G MT 0421, 2565: B4S B4Y A4S A4Y A5S A5Y A1S A1Y A2S A2Y A3S A3Y A6U A6F A6S A7U A7F A7S A8S A8D A8Y A9S A9D A9Y B1S B1D B1Y B2S B2D B2Y B5S B5D B5Y B6S B6D B6Y B7S B7D B7Y B8S B8D B8Y B9S B9D B9Y B3S B3D B3Y C1S C1D C1Y C5U C5F C5S C6U C9U D1U 	45K0409	2
6	<p>Hard disk drive, SATA 500GB 7200RPM / 3Gb / 16M</p> <ul style="list-style-type: none"> MT 0401: B6B B8B CSB K2B K3B K4B K7B G2A H6V H8V H9B H9V L3V N9B P1Q P1B P2B P3B P4B R5G Q2Q Q3Q Q4Q Q5Q Q6Q Q7Q Q8Q Q9Q R1Q R3Q R4Q R8B S1Q S2Q S3Q S3B S7B S9A T2M H6A H6Q H6T P1A P1T Q3A Q3T Q4A Q4T S9T T5B T3A T3T R5U R5F R5S U3U U3F U3S T7V T8V T9V U4H V9G W3J W8J W9J Y5G Y6B Y7B Y8B Y9J Z4G ZAP ZBP MT 0994: A2G A3G A4G A5G A7G A8G A9G B1G B2G C1G C2G C3G C4G C5G C6G MT 0421, 2565: C2S C2D C2Y C3S C3D C3Y C4S C4D C4Y C7S C7D C7Y C8S C8D C8Y 	41X5582	2
6	<p>Hard disk drive, SATA 500GB 7200RPM / 3Gb / 16M</p> <ul style="list-style-type: none"> MT 0401: B6B B8B CSB K2B K3B K4B K7B G2A H6V H8V H9B H9V L3V N9B P1Q P1B P2B P3B P4B R5G Q2Q Q3Q Q4Q Q5Q Q6Q Q7Q Q8Q Q9Q R1Q R3Q R4Q R8B S1Q S2Q S3Q S3B S7B S9A T2M H6A H6Q H6T P1A P1T Q3A Q3T Q4A Q4T S9T T5B T3A T3T R5U R5F R5S U3U U3F U3S T7V T8V T9V U4H V9G W3J W8J W9J Y5G Y6B Y7B Y8B Y9J Z4G ZAP ZBP MT 0994: A2G A3G A4G A5G A7G A8G A9G B1G B2G C1G C2G C3G C4G C5G C6G MT 0421, 2565: C2S C2D C2Y C3S C3D C3Y C4S C4D C4Y C7S C7D C7Y C8S C8D C8Y 	45K0410	2
7	<p>Optical drive, SATA slim DVD-ROM</p> <ul style="list-style-type: none"> MT 0401: AGJ AKJ C1V C2V CRB CSB F8J F9J G3J G5J G6J G8J G9J H1J H7V P9J Q1J R9J T8V U4H V1G V1V W5J W7J W9J Z2J MT 0994: MT 0421, 2565: 	71Y5848	N

Item #	FRUs	FRU #	CRU
7	<p>Optical drive, SATA slim Rambo</p> <ul style="list-style-type: none"> MT 0401: B5B B6B B7B B8B B9G BBG BCG BDG A2U A2F A2S A3U A3F A3S A5U A5F A5S APU APF AQM ASG AUJ B1S B1Y B3S B3Y AAS AAY ACS ACY ADM AFM AHJ AJJ AMJ ANJ C3S C3Y A1M A7G A8G A9G C5G C6G A6Q BLQ BMQ BNQ BPQ BQV BSV CWG F2Q B1P C5P F3P F4P F5P F6P F7J G6G G6M K2B K3B K4B K5B K6B K7B G1A G2A H2A H2T H3A H3T H4A H4T H5A H5T G4J G5J J3G J1G J2G J5Q J7Q J8Q J9Q K1Q H6V H8V H9B H9V L3V L5Q L6Q L7Q L8Q L9Q M4Q M6Q M8Q M9Q N1Q N2Q P1Q P1B P2B P3B P4B P5B N7A N7T N8A N8T N8B P8J R5G Q2Q Q3Q Q4Q Q5Q Q6Q Q7Q Q8Q Q9Q R1Q R3Q R6U R6F R6S R7U R7F R7S R8B S1Q S2Q S3Q S3B S4Q S5M S6B S7B S9A T2M H6A H6Q H6T P1A P1T Q3A Q3T Q4A Q4T S9T T5B T3A T3T R5U R5F R5S T6G U1U U1F U1S U3U U3F U3S T7V T9V U5S U5D U5Y U6U U6F U6S V3P V4P V5P U7G U8G U9G V6G V7G S6G W1J W2J W3J W4J W6J W8J Y1J Y2G Y3G Y4G Y5G Y6B Y7B Y8B Y9J Z1J Z4G Z5P Z9G ZAP ZBP MT 0994: A1G A2G A3G A4G A5G A6G A7G A8G A9G B1G B2G C1G C2G C3G C4G C5G C6G MT 0421, 2565: B4S B4Y A4S A4Y A5S A5Y A1S A1Y A2S A2Y A3S A3Y A6U A6F A6S A7U A7F A7S A8S A8D A8Y A9S A9D A9Y B5S B5D B5Y B6S B6D B6Y B7S B7D B7Y B8S B8D B8Y B9S B9D B9Y B3S B3D B3Y C1S C1D C1Y C4S C4D C4Y C5U C5F C5S C6U C8S C8D C8Y C9U D1U 	45K0433	N
9	<p>Power supply assembly, 130w PSU</p> <ul style="list-style-type: none"> MT 0401: B5B B6B B7B B8B B9G BBG BCG BDG A2U A2F A2S A3U A3F A3S A5U A5F A5S BFA BFT BGA BGT BHA BHT BJA BJT BKA BKT APU APF AQM ASG AUJ B1S B1Y B2S B2Y B3S B3Y AAS AAY ABS ABY ACS ACY ADM AFM AGJ AHJ AJJ AKJ ALJ ALJ AMJ ANJ C3S C3Y A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ BQV BSV C1V C2V CNG CRB CSB CUG CVG CWG CPV CQV F1Q F2Q B1P C5P F3P F4P F5P F6P F7J F8J F9J G6G G6M K2B K3B K4B K5B K6B K7B G1A G2A H2A H2T H3A H3T H4A H4T H5A H5T G3J G4J G5J G6J G7J G8J G9J H1J J3G J1G J2G J4Q J5Q J6Q J7Q J8Q J9Q K1Q K8Q K9Q L1Q L2Q H6V H7V H8V H9B H9V L3V L4S L4D L4Y L5Q L6Q L7Q L8Q L9Q M1Q M2Q M3Q M4Q M5Q M6Q M7Q M8Q M9Q N1Q N2Q N3Q N4Q N5Q N6Q P6M P7B N9B P1Q P1B P2B P3B P4B P5B N7A N7T N8A N8T N8B P8J P9J Q1J R5G Q2Q Q3Q Q4Q Q5Q Q6Q Q7Q Q8Q Q9Q R1Q R2Q R3Q R4Q R6U R6F R6S R7U R7F R7S R8B R9J S1Q S2Q S3Q S3B S4Q S5M S6B S7B S9A T1M T2M H6A H6Q H6T P1A P1T Q4A Q4T S9T T5B T3A T3T R5U R5F R5S T6G U1U U1F U1S U2U U2F U2S U3U U3F U3S T7V T8V T9V U4H U5S U5D U5Y V2P V3P V4P V5P U7G U8G U9G V1G V1V V6G V7G S6G V8G V9G W1J W2J W3J W4J W5J W6J W7J W8J W9J Y1J Y2G Y3G Y4G Y5G Y6B Y7B Y8B Y9J Z1J Z2J Z3G Z4G Z5P Z8G Z9G ZAP ZBP MT 0994: A1G A2G A3G A4G A5G A6G A7G A8G A9G B1G B2G C1G C2G C3G C4G C5G C6G MT 0421, 2565: B4S B4Y A4S A4Y A5S A5Y A1S A1Y A2S A2Y A3S A3Y A6U A6F A6S A7U A7F A7S A8S A8D A8Y A9S A9D A9Y B1S B1D B1Y B2S B2D B2Y B5S B5D B5Y B6S B6D B6Y B7S B7D B7Y B8S B8D B8Y B9S B9D B9Y B3S B3D B3Y C4S C4D C4Y C5U C5F C5S C6U C7S C7D C7Y C8S C8D C8Y C9U D1U 	71Y8204	N

Item #	FRUs	FRU #	CRU
10	<p>Rear I/O assembly</p> <ul style="list-style-type: none"> MT 0401: B5B B6B B7B B8B B9G BBG BCG BDG A2U A2F A2S A3U A3F A3S A5U A5F A5S BFA BFT BGA BGT BHA BHT BJA BJT BKA BKT APU APF AQM ASG AUJ B1S B1Y B2S B2Y B3S B3Y AAS AAY ABS ABY ACS ACY ADM AFM AGJ AHJ AJJ AKJ ALJ ALJ AMJ ANJ C3S C3Y A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ BQV BSV C1V C2V CNG CRB CSB CUG CVG CWG CPV CQV F1Q F2Q B1P C5P F3P F4P F5P F6P F7J F8J F9J G6G G6M K2B K3B K4B K5B K6B K7B G1A G2A H2A H2T H3A H3T H4A H4T H5A H5T G3J G4J G5J G6J G7J G8J G9J H1J J3G J1G J2G J4Q J5Q J6Q J7Q J8Q J9Q K1Q K8Q K9Q L1Q L2Q H6V H7V H8V H9B H9V L3V L4S L4D L4Y L5Q L6Q L7Q L8Q L9Q M1Q M2Q M3Q M4Q M5Q M6Q M7Q M8Q M9Q N1Q N2Q N3Q N4Q N5Q N6Q P6M P7B N9B P1Q P1B P2B P3B P4B P5B N7A N7T N8A N8T N8B P8J P9J Q1J R5G Q2Q Q3Q Q4Q Q5Q Q6Q Q7Q Q8Q Q9Q R1Q R2Q R3Q R4Q R6U R6F R6S R7U R7F R7S R8B R9J S1Q S2Q S3Q S3B S4Q S5M S6B S7B S9A T1M T2M H6A H6Q H6T P1A P1T Q3A Q3T Q4A Q4T S9T T5B T3A T3T R5U R5F R5S T6G U1U U1F U1S U2U U2F U2S U3U U3F U3S T7V T8V T9V U4H U5S U5D U5Y U6U U6F U6S V2P V3P V4P V5P U7G U8G U9G V1G V1V V6G V7G S6G V8G V9G W1J W2J W3J W4J W5J W6J W7J W8J W9J Y1J Y2G Y3G Y4G Y5G Y6B Y7B Y8B Y9J Z1J Z2J Z3G Z4G Z5P Z8G Z9G ZAP ZBP MT 0994: A1G A2G A3G A4G A5G A6G A7G A8G A9G B1G B2G C1G C2G C3G C4G C5G C6G MT 0421, 2565: B4S B4Y A4S A4Y A5S A5Y A1S A1Y A2S A2Y A3S A3Y A6U A6F A6S A7U A7F A7S A8S A8D A8Y A9S A9D A9Y B1S B1D B1Y B2S B2D B2Y B5S B5D B5Y B6S B6D B6Y B7S B7D B7Y B8S B8D B8Y B9S B9D B9Y B3S B3D B3Y C1S C1D C1Y C2S C2D C2Y C3S C3D C3Y C4S C4D C4Y C5U C5F C5S C6U C7S C7D C7Y C8S C8D C8Y C9U D1U 	03T6011	2
11	<p>Battery 3V-lithium</p> <ul style="list-style-type: none"> MT 0401: B5B B6B B7B B8B B9G BBG BCG BDG A2U A2F A2S A3U A3F A3S A5U A5F A5S BFA BFT BGA BGT BHA BHT BJA BJT BKA BKT APU APF AQM ASG AUJ B1S B1Y B2S B2Y B3S B3Y AAS AAY ABS ABY ACS ACY ADM AFM AGJ AHJ AJJ AKJ ALJ ALJ AMJ ANJ C3S C3Y A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ BQV BSV C1V C2V CNG CRB CSB CUG CVG CWG CPV CQV F1Q F2Q B1P C5P F3P F4P F5P F6P F7J F8J F9J G6G G6M K2B K3B K4B K5B K6B K7B G1A G2A H2A H2T H3A H3T H4A H4T H5A H5T G3J G4J G5J G6J G7J G8J G9J H1J J3G J1G J2G J4Q J5Q J6Q J7Q J8Q J9Q K1Q K8Q K9Q L1Q L2Q H6V H7V H8V H9B H9V L3V L4S L4D L4Y L5Q L6Q L7Q L8Q L9Q M1Q M2Q M3Q M4Q M5Q M6Q M7Q M8Q M9Q N1Q N2Q N3Q N4Q N5Q N6Q P6M P7B N9B P1Q P1B P2B P3B P4B P5B N7A N7T N8A N8T N8B P8J P9J Q1J R5G Q2Q Q3Q Q4Q Q5Q Q6Q Q7Q Q8Q Q9Q R1Q R2Q R3Q R4Q R6U R6F R6S R7U R7F R7S R8B R9J S1Q S2Q S3Q S3B S4Q S5M S6B S7B S9A T1M T2M H6A H6Q H6T P1A P1T Q3A Q3T Q4A Q4T S9T T5B T3A T3T R5U R5F R5S T6G U1U U1F U1S U2U U2F U2S U3U U3F U3S T7V T8V T9V U4H U5S U5D U5Y U6U U6F U6S V2P V3P V4P V5P U7G U8G U9G V1G V1V V6G V7G S6G V8G V9G W1J W2J W3J W4J W5J W6J W7J W8J W9J Y1J Y2G Y3G Y4G Y5G Y6B Y7B Y8B Y9J Z1J Z2J Z3G Z4G Z5P Z8G Z9G ZAP ZBP MT 0994: A1G A2G A3G A4G A5G A6G A7G A8G A9G B1G B2G C1G C2G C3G C4G C5G C6G MT 0421, 2565: B4S B4Y A4S A4Y A5S A5Y A1S A1Y A2S A2Y A3S A3Y A6U A6F A6S A7U A7F A7S A8S A8D A8Y A9S A9D A9Y B1S B1D B1Y B2S B2D B2Y B5S B5D B5Y B6S B6D B6Y B7S B7D B7Y B8S B8D B8Y B9S B9D B9Y B3S B3D B3Y C1S C1D C1Y C2S C2D C2Y C3S C3D C3Y C4S C4D C4Y C5U C5F C5S C6U C7S C7D C7Y C8S C8D C8Y C9U D1U 	45C1566	1

Item #	FRUs	FRU #	CRU
13	<p>System board, G41 DDR3 planar GA</p> <ul style="list-style-type: none"> MT 0401: B5B B6B B7B B8B B9G BBG BCG BDG A2U A2F A2S A3U A3F A3S A5U A5F A5S BFA BFT BGA BGT BHA BHT BJA BJT BKA BKT APU APF AQM ASG AUJ B1S B1Y B2S B2Y B3S B3Y AAS AAY ABS ABY ACS ACY ADM AFM AGJ AHJ AJJ AKJ ALJ ALJ AMJ ANJ C3S C3Y A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ BQV BSV C1V C2V CNG CRB CSB CUG CVG CWG CPV CQV F1Q F2Q B1P C5P F3P F4P F5P F6P F7J F8J F9J G6G G6M K2B K3B K4B K5B K6B K7B G1A G2A H2A H2T H3A H3T H4A H4T H5A H5T G3J G4J G5J G6J G7J G8J G9J H1J J3G J1G J2G J4Q J5Q J6Q J7Q J8Q J9Q K1Q K8Q K9Q L1Q L2Q H6V H7V H8V H9B H9V L3V L4S L4D L4Y L5Q L6Q L7Q L8Q L9Q M1Q M2Q M3Q M4Q M5Q M6Q M7Q M8Q M9Q N1Q N2Q N3Q N4Q N5Q N6Q P6M P7B N9B P1Q P1B P2B P3B P4B P5B N7A N7T N8A N8T N8B P8J P9J Q1J R5G Q2Q Q3Q Q4Q Q5Q Q6Q Q7Q Q8Q Q9Q R1Q R2Q R3Q R4Q R6U R6F R6S R7U R7F R7S R8B R9J S1Q S2Q S3Q S3B S4Q S5M S6B S7B S9A T1M T2M H6A H6Q H6T P1A P1T Q3A Q3T Q4A Q4T S9T T5B T3A T3T R5U R5F R5S T6G U1U U1F U1S U2U U2F U2S U3U U3F U3S T7V T8V T9V U4H U5S U5D U5Y U6U U6F U6S V2P V3P V4P V5P U7G U8G U9G V1G V1V V6G V7G S6G V8G V9G W1J W2J W3J W4J W5J W6J W7J W8J W9J Y1J Y2G Y3G Y4G Y5G Y6B Y7B Y8B Y9J Z1J Z2J Z3G Z4G Z5P Z8G Z9G ZAP ZBP MT 0994: A1G A2G A3G A4G A5G A6G A7G A8G A9G B1G B2G C1G C2G C3G C4G C5G C6G MT 0421, 2565: B4S B4Y A4S A4Y A5S A5Y A1S A1Y A2S A2Y A3S A3Y A6U A6F A6S A7U A7F A7S A8S A8D A8Y A9S A9D A9Y B1S B1D B1Y B2S B2D B2Y B5S B5D B5Y B6S B6D B6Y B7S B7D B7Y B8S B8D B8Y B9S B9D B9Y B3S B3D B3Y C1S C1D C1Y C2S C2D C2Y C3S C3D C3Y C4S C4D C4Y C5U C5F C5S C6U C7S C7D C7Y C8S C8D C8Y C9U D1U 	89Y0902	N
15	<p>Inverter</p> <ul style="list-style-type: none"> MT 0401: B5B B6B B7B B8B B9G BBG BCG BDG A2U A2F A2S A3U A3F A3S A5U A5F A5S BFA BFT BGA BGT BHA BHT BJA BJT BKA BKT APU APF AQM ASG AUJ B1S B1Y B2S B2Y B3S B3Y AAS AAY ABS ABY ACS ACY ADM AFM AGJ AHJ AJJ AKJ ALJ ALJ AMJ ANJ C3S C3Y A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ BQV BSV C1V C2V CNG CRB CSB CUG CVG CWG CPV CQV F1Q F2Q B1P C5P F3P F4P F5P F6P F7J F8J F9J G6G G6M K2B K3B K4B K5B K6B K7B G1A G2A H2A H2T H3A H3T H4A H4T H5A H5T G3J G4J G5J G6J G7J G8J G9J H1J J3G J1G J2G J4Q J5Q J6Q J7Q J8Q J9Q K1Q K8Q K9Q L1Q L2Q H6V H7V H8V H9B H9V L3V L4S L4D L4Y L5Q L6Q L7Q L8Q L9Q M1Q M2Q M3Q M4Q M5Q M6Q M7Q M8Q M9Q N1Q N2Q N3Q N4Q N5Q N6Q P6M P7B N9B P1Q P1B P2B P3B P4B P5B N7A N7T N8A N8T N8B P8J P9J Q1J R5G Q2Q Q3Q Q4Q Q5Q Q6Q Q7Q Q8Q Q9Q R1Q R2Q R3Q R4Q R6U R6F R6S R7U R7F R7S R8B R9J S1Q S2Q S3Q S3B S4Q S5M S6B S7B S9A T1M T2M H6A H6Q H6T P1A P1T Q3A Q3T Q4A Q4T S9T T5B T3A T3T R5U R5F R5S T6G U1U U1F U1S U2U U2F U2S U3U U3F U3S T7V T8V T9V U4H U5S U5D U5Y U6U U6F U6S V2P V3P V4P V5P U7G U8G U9G V1G V1V V6G V7G S6G V8G V9G W1J W2J W3J W4J W5J W6J W7J W8J W9J Y1J Y2G Y3G Y4G Y5G Y6B Y7B Y8B Y9J Z1J Z2J Z3G Z4G Z5P Z8G Z9G ZAP ZBP MT 0994: A1G A2G A3G A4G A5G A6G A7G A8G A9G B1G B2G C1G C2G C3G C4G C5G C6G MT 0421, 2565: B4S B4Y A4S A4Y A5S A5Y A1S A1Y A2S A2Y A3S A3Y A6U A6F A6S A7U A7F A7S A8S A8D A8Y A9S A9D A9Y B1S B1D B1Y B2S B2D B2Y B5S B5D B5Y B6S B6D B6Y B7S B7D B7Y B8S B8D B8Y B9S B9D B9Y B3S B3D B3Y C1S C1D C1Y C2S C2D C2Y C3S C3D C3Y C4S C4D C4Y C5U C5F C5S C6U C7S C7D C7Y C8S C8D C8Y C9U D1U 	03T6012	2

Mechanical FRUs

The FRUs listed in the following tables are not illustrated.

FRUs	FRU #	CRU
Rubber feet <ul style="list-style-type: none">• MT 0401: all models• MT 0994: all models• MT 0421, 2565: all models	45K6426	N
Antenna main <ul style="list-style-type: none">• MT 0401: all models• MT 0994: all models• MT 0421, 2565: all models	45K6417	N
Antenna aux <ul style="list-style-type: none">• MT 0401: all models• MT 0994: all models• MT 0421, 2565: all models	45K6418	N
SATA_cable <ul style="list-style-type: none">• MT 0401: all models• MT 0994: all models• MT 0421, 2565: all models	45K6419	N
Inverter_cable <ul style="list-style-type: none">• MT 0401: all models• MT 0994: all models• MT 0421, 2565: all models	45K6420	N
Rear_I/O_30P_cable <ul style="list-style-type: none">• MT 0401: all models• MT 0994: all models• MT 0421, 2565: all models	45K6421	N
Rear_I/O_40P_cable <ul style="list-style-type: none">• MT 0401: all models• MT 0994: all models• MT 0421, 2565: all models	45K6422	N
LVDS_cable <ul style="list-style-type: none">• MT 0401: all models• MT 0994: all models• MT 0421, 2565: all models	45K6423	N
19-inch 1440x900 LCD panel <ul style="list-style-type: none">• MT 0401: all models• MT 0994: all models• MT 0421, 2565: all models	89Y0897	N

FRUs	FRU #	CRU
19-inch 1440x900 LCD panel <ul style="list-style-type: none"> MT 0401: all models MT 0994: all models MT 0421, 2565: all models 	03T9003	N
19inch 1440x900 LCD panel <ul style="list-style-type: none"> MT 0401: all models MT 0994: all models MT 0421, 2565: all models 	03T9011	N
Front and rear bezel, camera & optical drive model <ul style="list-style-type: none"> MT 0401: all models MT 0994: all models MT 0421, 2565: all models 	03T9583	N
Speakers left & right, <ul style="list-style-type: none"> MT 0401: all models MT 0994: all models MT 0421, 2565: all models 	03T9566	N
Power button and LED cable <ul style="list-style-type: none"> MT 0401: all models MT 0994: all models MT 0421, 2565: all models 	03T9635	N
System board fan <ul style="list-style-type: none"> MT 0401: all models MT 0994: all models MT 0421, 2565: all models 	03T9568	N
Optical drive cover for non-optical drive model <ul style="list-style-type: none"> MT 0401: all models MT 0994: all models MT 0421, 2565: all models 	03T9569	N
Front bezel, no webcam <ul style="list-style-type: none"> MT 0401: all models MT 0994: all models MT 0421, 2565: all models 	03T9570	N
Front bezel, with webcam <ul style="list-style-type: none"> MT 0401: all models MT 0994: all models MT 0421, 2565: all models 	03T9689	N
EMI_GASKET_system board_sheilding <ul style="list-style-type: none"> MT 0401: all models MT 0994: all models MT 0421, 2565: all models 	03T9708	N

Keyboard and Mouse

Keyboard (Lenovo Preferred Pro USB -- without hub)	FRU #	CRU
<p>US English</p> <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G J4Q J5Q J6Q K8Q K9Q L1Q L2Q H6V H7V H9B H9V L3V L5Q L6Q L7Q L8Q L9Q M1Q M2Q M3Q M4Q M5Q M6Q M7Q N3Q N4Q N5Q N6Q P6M N7A R5G Q2Q Q3Q Q4Q R1Q R2Q R3Q R4Q R6U R7U S1Q S2Q S5M S9A T1M H6A H6Q Q3A Q4A T3A R5U U1U U2U U3U U4H U6U MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: A6U A7U C5U C6U C9U D1U 	41A5289	1
<p>Arabic</p> <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	41A5290	1
<p>A/F</p> <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	41A5291	1
<p>B/F</p> <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	41A5292	1
<p>Belgium English</p> <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	41A5293	1
<p>Brazilian Portuguese</p> <ul style="list-style-type: none"> MT 0401: B1P C5P F3P F4P F5P F6P V2P V3P V4P V5P Z5P ZAP ZBP MT 0994: MT 0421, 2565: 	41A5294	1

Keyboard (Lenovo Preferred Pro USB -- without hub)	FRU #	CRU
Bulgarian <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	41A5295	1
Chinese/US <ul style="list-style-type: none"> MT 0401: B5B B6B B7B BQV BSV C1V C2V K2B K3B P7B P5B S6B T7V T8V V1V Y7B MT 0994: MT 0421, 2565: 	41A5296	1
Czech (ABB) <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	41A5297	1
Danish <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	41A5298	1
Dutch <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	41A5299	1
French <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	41A5300	1
French Canadian <ul style="list-style-type: none"> MT 0401: A2F A3F APF R6F R7F R5F U1F U2F U3F U6F MT 0994: MT 0421, 2565: A6F A7F C5F 	41A5301	1

Keyboard (Lenovo Preferred Pro USB -- without hub)	FRU #	CRU
<p>French Canadian</p> <ul style="list-style-type: none"> MT 0401: A2F A3F APF R6F R7F R5F U1F U2F U3F U6F MT 0994: MT 0421, 2565: A6F A7F C5F 	41A5302	1
<p>German</p> <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	41A5303	1
<p>Greek</p> <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	41A5304	1
<p>Greek/US</p> <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	41A5305	1
<p>Hebrew</p> <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	41A5306	1
<p>Hungarian</p> <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	41A5307	1
<p>Iceland</p> <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	41A5308	1

Keyboard (Lenovo Preferred Pro USB -- without hub)	FRU #	CRU
Italy <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	41A5309	1
Japanese <ul style="list-style-type: none"> MT 0401: AUJ AGJ AHJ AJJ AKJ ALJ ALJ AMJ F7J F8J F9J G3J G4J G5J G6J G7J G8J G9J P8J P9J Q1J R9J W1J W2J W3J W4J W5J W6J W7J W8J W9J Y1J Z2J MT 0994: MT 0421, 2565: 	41A5310	1
Korean <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	41A5311	1
LA Spanish <ul style="list-style-type: none"> MT 0401: A2S A3S B1S B1Y B2S B2Y B3S B3Y AAS AAY ABS ABY ACS ACY C3S C3Y L4S L4D L4Y R6S R7S R5S U1S U2S U3S U5S U5D U5Y U6S MT 0994: MT 0421, 2565: B4S B4Y A1S A1Y A2S A2Y A3S A3Y A6S A7S A8S A8D A8Y A9S A9D A9Y B1S B1D B1Y B2S B2D B2Y B5S B5D B5Y B6S B6D B6Y B7S B7D B7Y B8S B8D B8Y B9S B9D B9Y B3S B3D B3Y C1S C1D C1Y C2S C2D C2Y C3S C3D C3Y C4S C4D C4Y C5S C7S C7D C7Y C8S C8D C8Y 	41A5312	1
Norwegian <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	41A5313	1
Polish <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	41A5314	1
Portuguese <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	41A5315	1

Keyboard (Lenovo Preferred Pro USB -- without hub)	FRU #	CRU
Romanian <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	41A5317	1
Romanian <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	41A5316	1
Russian/Cyrillic <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	41A5318	1
Serbian/Cyrillic <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	41A5319	1
Slovak <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	41A5320	1
Spanish <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	41A5321	1

Keyboard (Lenovo Preferred Pro USB -- without hub)	FRU #	CRU
Swedish/Finnish <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	41A5322	1
SF/G <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	41A5323	1
Thailand <ul style="list-style-type: none"> MT 0401: BFT BGT BJT BKT H2T H3T H4T H5T N7T H6T Q3T Q4T S9T T3T MT 0994: MT 0421, 2565: 	41A5324	1
Turkish <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	41A5325	1
Turkish <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	41A5326	1
UK English <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	41A5327	1
US European <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	41A5328	1

Keyboard (Lenovo Preferred Pro USB -- without hub)	FRU #	CRU
<p>Slovenian</p> <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: MT 0421, 2565: 	41A5329	1
<p>Arabic (new)</p> <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C2G C3G C5G MT 0421, 2565: 	45J4880	1
<p>Lithuanian</p> <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG CRB CSB CPV CQV F1Q F2Q CUG CWG G6G G6M G1A G2A H2A H3A H4A H5A J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Z3G Z4G MT 0994: MT 0421, 2565: 	45J4896	1
<p>India</p> <ul style="list-style-type: none"> MT 0401: A6Q BLQ BMQ BNQ BPQ F1Q F2Q MT 0994: MT 0421, 2565: 	54Y8381	1

Wireless Keyboard	FRU #	CRU
<p>US English China</p> <ul style="list-style-type: none"> MT 0401: A5U BHA AFM J3G J7Q J8Q J9Q K1Q H8V M8Q M9Q N1Q N2Q P1Q N8A Q5Q Q6Q Q7Q Q8Q Q9Q S3Q S4Q T2M P1A MT 0994: A5G C1G C4G C6G MT 0421, 2565: 	57Y4740	1
<p>Arabic</p> <ul style="list-style-type: none"> MT 0401: J3G Y5G MT 0994: A5G C1G C4G C6G MT 0421, 2565: 	57Y4741	1
<p>A/F</p> <ul style="list-style-type: none"> MT 0401: MT 0994: A5G C1G C4G C6G MT 0421, 2565: 	57Y4742	1
<p>B/F</p> <ul style="list-style-type: none"> MT 0401: J3G Y5G MT 0994: A5G C1G C4G C6G MT 0421, 2565: 	57Y4743	1

Wireless Keyboard	FRU #	CRU
Belgium English <ul style="list-style-type: none"> MT 0401: J3G Y5G MT 0994: A5G C1G C4G C6G MT 0421, 2565: 	57Y4744	1
Brazilian Portuguese <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	57Y4745	1
Bulgarian <ul style="list-style-type: none"> MT 0401: J3G Y5G MT 0994: A5G C1G C4G C6G MT 0421, 2565: 	57Y4746	1
Chinese/US <ul style="list-style-type: none"> MT 0401: B8B K4B K5B K6B K7B N9B P1B P2B P3B P4B N8B R8B S3B S7B T5B T9V Y6B Y8B MT 0994: MT 0421, 2565: 	57Y4747	1
Czech (ABB) <ul style="list-style-type: none"> MT 0401: J3G Y5G MT 0994: A5G C1G C4G C6G MT 0421, 2565: 	57Y4748	1
Danish <ul style="list-style-type: none"> MT 0401: J3G Y5G MT 0994: A5G C1G C4G C6G MT 0421, 2565: 	57Y4749	1
Dutch <ul style="list-style-type: none"> MT 0401: J3G Y5G MT 0994: A5G C1G C4G C6G MT 0421, 2565: 	57Y4750	1
French <ul style="list-style-type: none"> MT 0401: J3G Y5G MT 0994: A5G C1G C4G C6G MT 0421, 2565: 	57Y4751	1
French Canadian <ul style="list-style-type: none"> MT 0401: A5F MT 0994: MT 0421, 2565: 	57Y4752	1
French Canadian <ul style="list-style-type: none"> MT 0401: A5F MT 0994: MT 0421, 2565: 	57Y4753	1

Wireless Keyboard	FRU #	CRU
German <ul style="list-style-type: none"> MT 0401: J3G Y5G MT 0994: A5G C1G C4G C6G MT 0421, 2565: 	57Y4754	1
wireless-Greek <ul style="list-style-type: none"> MT 0401: J3G Y5G MT 0994: A5G C1G C4G C6G MT 0421, 2565: 	57Y4755	1
Greek/US <ul style="list-style-type: none"> MT 0401: J3G Y5G MT 0994: A5G C1G C4G C6G MT 0421, 2565: 	57Y4756	1
Hebrew <ul style="list-style-type: none"> MT 0401: J3G Y5G MT 0994: A5G C1G C4G C6G MT 0421, 2565: 	57Y4757	1
Hungarian <ul style="list-style-type: none"> MT 0401: J3G Y5G MT 0994: A5G C1G C4G C6G MT 0421, 2565: 	57Y4758	1
Iceland <ul style="list-style-type: none"> MT 0401: J3G Y5G MT 0994: A5G C1G C4G C6G MT 0421, 2565: 	57Y4759	1
Italy <ul style="list-style-type: none"> MT 0401: J3G Y5G MT 0994: A5G C1G C4G C6G MT 0421, 2565: 	57Y4760	1
Japanese <ul style="list-style-type: none"> MT 0401: ANJ H1J Y9J Z1J MT 0994: MT 0421, 2565: 	57Y4761	1
Korean <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	57Y4762	1
LA Spanish <ul style="list-style-type: none"> MT 0401: A5S MT 0994: MT 0421, 2565: A4S A4Y A5S A5Y 	57Y4763	1

Wireless Keyboard	FRU #	CRU
Norwegian <ul style="list-style-type: none"> • MT 0401: J3G Y5G • MT 0994: A5G C1G C4G C6G • MT 0421, 2565: 	57Y4764	1
Polish <ul style="list-style-type: none"> • MT 0401: J3G Y5G • MT 0994: A5G C1G C4G C6G • MT 0421, 2565: 	57Y4765	1
Portuguese <ul style="list-style-type: none"> • MT 0401: J3G Y5G • MT 0994: A5G C1G C4G C6G • MT 0421, 2565: 	57Y4766	1
Russian/Cyrillic <ul style="list-style-type: none"> • MT 0401: J3G Y5G • MT 0994: A5G C1G C4G C6G • MT 0421, 2565: 	57Y4767	1
Slovak <ul style="list-style-type: none"> • MT 0401: J3G Y5G • MT 0994: A5G C1G C4G C6G • MT 0421, 2565: 	57Y4768	1
Spanish <ul style="list-style-type: none"> • MT 0401: J3G Y5G • MT 0994: A5G C1G C4G C6G • MT 0421, 2565: 	57Y4769	1
Swedish/Finnish <ul style="list-style-type: none"> • MT 0401: J3G Y5G • MT 0994: A5G C1G C4G C6G • MT 0421, 2565: 	57Y4770	1
SF/G <ul style="list-style-type: none"> • MT 0401: J3G Y5G • MT 0994: A5G C1G C4G C6G • MT 0421, 2565: 	57Y4771	1
Thailand <ul style="list-style-type: none"> • MT 0401: BHT N8T P1T • MT 0994: • MT 0421, 2565: 	57Y4772	1
Turkish <ul style="list-style-type: none"> • MT 0401: J3G Y5G • MT 0994: A5G C1G C4G C6G • MT 0421, 2565: 	57Y4773	1

Wireless Keyboard	FRU #	CRU
UK English <ul style="list-style-type: none"> MT 0401: J3G Y5G MT 0994: A5G C1G C4G C6G MT 0421, 2565: 	57Y4774	1
US European <ul style="list-style-type: none"> MT 0401: J3G Y5G MT 0994: A5G C1G C4G C6G MT 0421, 2565: 	57Y4775	1
Slovenian <ul style="list-style-type: none"> MT 0401: J3G Y5G MT 0994: A5G C1G C4G C6G MT 0421, 2565: 	57Y4776	1

Mice	FRU #	CRU
Optical wheel mouse (400DPI, USB) <ul style="list-style-type: none"> MT 0401: B5B B6B B7B B8B B9G BBG BCG BDG A2U A2F A2S A3U A3F A3S A5U A5F A5S BFA BFT BGA BGT BHA BHT BJA BJT BKA BKT APU APF AQM ASG AUJ B1S B1Y B2S B2Y B3S B3Y AAS AAY ABS ABY ACS ACY ADM AFM AGJ AHJ AJJ AKJ ALJ ALJ AMJ ANJ CNG CUG CWG CPV CQV F1Q F2Q B1P C5P F3P F4P F5P F6P F7J F8J F9J G6G G6M K2B K3B K4B K5B K6B K7B G1A G2A H2A H2T H3A H3T H4A H4T H5A H5T G3J G4J G5J G6J G7J G8J G9J H1J J3G J1G J2G J4Q J5Q J6Q J7Q J8Q J9Q K1Q K8Q K9Q L1Q L2Q H6V H7V H8V H9B H9V L3V L4S L4D L4Y L5Q L6Q L7Q L8Q L9Q M1Q M2Q M3Q M4Q M5Q M6Q M7Q N3Q N4Q N5Q N6Q P6M P7B P5B N7A N7T P8J P9J Q1J R5G Q2Q Q3Q Q4Q R1Q R2Q R3Q R4Q R6U R6F R6S R7U R7F R7S R9J S1Q S2Q S3Q S3B S4Q S5M S6B S7B S9A T1M T2M H6A H6Q H6T P1A Q3A Q3T Q4A Q4T S9T T3A T3T R5U R5F R5S T6G U1U U1F U1S U2U U2F U2S U3U U3F U3S T7V T8V T9V U4H U5S U5D U5Y U6U U6F U6S V2P V3P V4P V5P U7G U8G U9G V1G V1V V6G V7G S6G V8G V9G W1J W2J W3J W4J W5J W6J W7J W8J W9J Y1J Y2G Y3G Y4G Y7B Y9J Z1J Z2J Z3G Z4G Z5P Z8G Z9G ZAP ZBP MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C1G C2G C3G C4G C5G C6G MT 0421, 2565: B4S B4Y A4S A4Y A5S A5Y A1S A1Y A2S A2Y A3S A3Y A6U A6F A6S A7U A7F A7S A8S A8D A8Y A9S A9D A9Y B1S B1D B1Y B2S B2D B2Y B5S B5D B5Y B6S B6D B6Y B7S B7D B7Y B8S B8D B8Y B9S B9D B9Y B3S B3D B3Y C1S C1D C1Y C2S C2D C2Y C3S C3D C3Y C4S C4D C4Y C5U C5F C5S C6U C7S C7D C7Y C8S C8D C8Y C9U D1U 	41U3013	1
Optical wheel mouse USB <ul style="list-style-type: none"> MT 0401: B5B B6B B7B B8B B9G BBG BCG BDG A2U A2F A2S A3U A3F A3S A5U A5F A5S BFA BFT BGA BGT BHA BHT BJA BJT BKA BKT APU APF AQM ASG AUJ B1S B1Y B2S B2Y B3S B3Y AAS AAY ABS ABY ACS ACY ADM AFM AGJ AHJ AJJ AKJ ALJ ALJ AMJ ANJ CNG CUG CWG CPV CQV F1Q F2Q B1P C5P F3P F4P F5P F6P F7J F8J F9J G6G G6M K2B K3B K4B K5B K6B K7B G1A G2A H2A H2T H3A H3T H4A H4T H5A H5T G3J G4J G5J G6J G7J G8J G9J H1J J3G J1G J2G J4Q J5Q J6Q J7Q J8Q J9Q K1Q K8Q K9Q L1Q L2Q H6V H7V H8V H9B H9V L3V L4S L4D L4Y L5Q L6Q L7Q L8Q L9Q M1Q M2Q M3Q M4Q M5Q M6Q M7Q N3Q N4Q N5Q N6Q P6M P7B P5B N7A N7T P8J P9J Q1J R5G Q2Q Q3Q Q4Q R1Q R2Q R3Q R4Q R6U R6F R6S R7U R7F R7S R9J S1Q S2Q S3Q S3B S4Q S5M S6B S7B S9A T1M T2M H6A H6Q H6T P1A Q3A Q3T Q4A Q4T S9T T3A T3T R5U R5F R5S T6G U1U U1F U1S U2U U2F U2S U3U U3F U3S T7V T8V T9V U4H U5S U5D U5Y U6U U6F U6S V2P V3P V4P V5P U7G U8G U9G V1G V1V V6G V7G S6G V8G V9G W1J W2J W3J W4J W5J W6J W7J W8J W9J Y1J Y2G Y3G Y4G Y7B Y9J Z1J Z2J Z3G Z4G Z5P Z8G Z9G ZAP ZBP 	89Y1273	1

Mice	FRU #	CRU
<ul style="list-style-type: none"> MT 0994: A1G A2G A3G A4G A6G A7G A8G A9G B1G B2G C1G C2G C3G C4G C5G C6G MT 0421, 2565: B4S B4Y A4S A4Y A5S A5Y A1S A1Y A2S A2Y A3S A3Y A6U A6F A6S A7U A7F A7S A8S A8D A8Y A9S A9D A9Y B1S B1D B1Y B2S B2D B2Y B5S B5D B5Y B6S B6D B6Y B7S B7D B7Y B8S B8D B8Y B9S B9D B9Y B3S B3D B3Y C1S C1D C1Y C2S C2D C2Y C3S C3D C3Y C4S C4D C4Y C5U C5F C5S C6U C7S C7D C7Y C8S C8D C8Y C9U D1U 		

Adapters and miscellaneous FRUs

Adapters and miscellaneous FRUs	FRU #	CRU
Intel Shirley Peak 1x2 MC <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	43Y6493	N
BCM BCM43225 2x2 MC <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	71Y8138	N

Power Cords

Power Cords --primary	FRU #	CRU
Line Cord - US <ul style="list-style-type: none"> MT 0401: A2U A2F A2S A3U A3F A3S A5U A5F A5S BFA BGA BJA BKA APU APF B1S C3S G1A G2A H2A H2T H3A H3T H4A H4T H5A H5T L4S L4D N7A N7T N8A N8T R6U R6F R6S R7U R7F R7S S9A H6A H6T P1A P1T Q3A Q3T Q4A Q4T S9T T3A T3T R5U R5F R5S U1U U1F U1S U2U U2F U2S U3U U3F U3S U5S U5D U6U U6F U6S MT 0994: MT 0421, 2565: B4S A4S A5S A1S A2S A3S A6U A6F A6S A7U A7F A7S A8S A8D A9S A9D B1S B1D B2S B2D B5S B5D B6S B6D B7S B7D B8S B8D B9S B9D B3S B3D C1S C1D C2S C2D C3S C3D C4S C4D C5U C5F C5S C6U C7S C7D C8S C8D C9U D1U 	41R3184	1
Line Cord - Brazil (Portuguese) <ul style="list-style-type: none"> MT 0401: B1P C5P F3P F4P F5P F6P V2P V3P V4P V5P Z5P ZAP ZBP MT 0994: MT 0421, 2565: 	41R3270	1
Line Cord - Brazil (Portuguese) <ul style="list-style-type: none"> MT 0401: B1P C5P F3P F4P F5P F6P V2P V3P V4P V5P Z5P ZAP ZBP MT 0994: MT 0421, 2565: 	45J9595	1

Power Cords --primary	FRU #	CRU
Line Cord - LA High Volt (APU) <ul style="list-style-type: none"> MT 0401: L4Y U5Y MT 0994: MT 0421, 2565: A8Y A9Y B1Y B2Y B5YB6Y B7Y B8Y B9Y B3Y C1Y C2Y C3Y C4Y C7Y C8Y 	41R3176	1
Line Cord - Korea <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	41R3260	1
Line Cord - UK, Ireland, Singapore, Malaysia, Brunei <ul style="list-style-type: none"> MT 0401: BFA BGA BJA BKA G1A G2A H2A H3A H4A H5A N7A N8A R5G S9A H6A P1A Q3A Q4A T3A T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Y5G Z3G Z4G Z8G Z9G MT 0994: A1G A2G A3G A4G A5G A6G A7G A8G A9G B1G B2G C1G C2G C3G C4G C5G C6G MT 0421, 2565: 	41R3224	1
Line Cord - Taiwan <ul style="list-style-type: none"> MT 0401: BQV BSV C1V C2V CPV CQV H6V H7V H8V H9V L3V T7V T8V T9V V1V MT 0994: MT 0421, 2565: 	41R3278	1
Line Cord - South Africa <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG F1Q F2Q CUG CWG G6M G1A G2A H2A H3A H4A H5A J3G J1G J2G P6M N7A N8A R5G S5M S9A T1M T2M H6A P1A Q3A Q4A T3A U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Y5G Z3G Z4G Z8G Z9G MT 0994: A1G A2G A3G A4G A5G A6G A7G A8G A9G B1G B2G C1G C2G C3G C4G C5G C6G MT 0421, 2565: 	41R3220	1
Line Cord - India <ul style="list-style-type: none"> MT 0401: A6Q BLQ BMQ BNQ BPQ F1Q F2Q J4Q J5Q J6Q J7Q J8Q J9Q K1Q K8Q K9Q L1Q L2Q L5Q L6Q L7Q L8Q L9Q M1Q M2Q M3Q M4Q M5Q M6Q M7Q M8Q M9Q N1Q N2Q N3Q N4Q N5Q N6Q P1Q Q2Q Q3Q Q4Q Q5Q Q6Q Q7Q Q8Q Q9Q R1Q R2Q R3Q R4Q S1Q S2Q S3Q S4Q H6Q MT 0994: MT 0421, 2565: 	41R3341	1
Line Cord - China <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	41R3256	1

Power Cords --primary	FRU #	CRU
Line Cord - Japan <ul style="list-style-type: none"> MT 0401: AUJ AGJ AHJ AJJ AKJ ALJ ALJ AMJ ANJ F7J F8J F9J G3J G4J G5J G6J G7J G8J G9J H1J P8J P9J Q1J R9J W1J W2J W3J W4J W5J W6J W7J W8J W9J Y1J Y9J Z1J Z2J MT 0994: MT 0421, 2565: 	41R3248	1
Line Cord - Italy <ul style="list-style-type: none"> MT 0401: A2S A3S A5S B1S B2S B3S AAS ABS ACS L4S L4Y R5G R5S T6G U1S U2S U3S U5S U5Y U6S U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Y5G Z3G Z4G Z8G Z9G MT 0994: A1G A2G A3G A4G A5G A6G A7G A8G A9G B1G B2G C1G C2G C3G C4G C5G C6G MT 0421, 2565: B4S A4S A5S A1S A2S A3S A6S A7S A8S A9S B1S B2S B5S B6S B7S B8S B9S B3S A8Y A9Y B1Y B2Y B5YB6Y B7Y B8Y B9Y B3Y C1S C1Y C2S C2Y C3S C3Y C4S C4Y C7S C7Y C8S C8Y 	41R3232	1
Line Cord - Indonesia, Laos, Cambodia, and Vietnam A models <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	41R3208	1
Line Cord - Denmark <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG F1Q F2Q CUG CWG G6G J3G J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Y5G Z3G Z4G Z8G Z9G MT 0994: A1G A2G A3G A4G A5G A6G A7G A8G A9G B1G B2G C1G C2G C3G C4G C5G C6G MT 0421, 2565: 	41R3212	1
Line Cord - Switzerland <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG F1Q F2Q CUG CWG G6G J3G J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Y5G Z3G Z4G Z8G Z9G MT 0994: A1G A2G A3G A4G A5G A6G A7G A8G A9G B1G B2G C1G C2G C3G C4G C5G C6G MT 0421, 2565: 	41R3228	1
Line Cord - Israel <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG F1Q F2Q CUG CWG G6G J3G J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Y5G Z3G Z4G Z8G Z9G MT 0994: A1G A2G A3G A4G A5G A6G A7G A8G A9G B1G B2G C1G C2G C3G C4G C5G C6G MT 0421, 2565: 	41R3236	1

Power Cords --primary	FRU #	CRU
Line Cord - A models <ul style="list-style-type: none"> MT 0401: BFA BGA BJA BKA G1A G2A H2A H3A H4A H5A N7A N8A S9A H6A P1A Q3A Q4A T3A MT 0994: MT 0421, 2565: 	41R3208	1
Line Cord - Thailand <ul style="list-style-type: none"> MT 0401: BFT BGT BJT BKT H6T P1T Q3T Q4T S9T T3T MT 0994: MT 0421, 2565: 	43N9029	1

Power Cords --secondary	FRU #	CRU
Line Cord - US <ul style="list-style-type: none"> MT 0401: A2U A2F A2S A3U A3F A3S A5U A5F A5S BFA BGA BJA BKA APU APF B1S C3S G1A G2A H2A H2T H3A H3T H4A H4T H5A H5T L4S L4D N7A N7T N8A N8T R6U R6F R6S R7U R7F R7S S9A H6A H6T P1A P1T Q3A Q3T Q4A Q4T S9T T3A T3T R5U R5F R5S U1U U1F U1S U2U U2F U2S U3U U3F U3S U5S U5D U6U U6F U6S MT 0994: MT 0421, 2565: B4S A4S A5S A1S A2S A3S A6U A6F A6S A7U A7F A7S A8S A8D A9S A9D B1S B1D B2S B2D B5S B5D B6S B6D B7S B7D B8S B8D B9S B9D B3S B3D C1S C1D C2S C2D C3S C3D C4S C4D C4Y C5U C5F C5S C6U C7S C7D C8S C8D C9U D1U 	41R3185	1
Line Cord - China <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	41R3257	1
Line Cord - Brazil (Portuguese) <ul style="list-style-type: none"> MT 0401: B1P C5P F3P F4P F5P F6P V2P V3P V4P V5P Z5P ZAP ZBP MT 0994: MT 0421, 2565: 	41R3271	1
Line Cord - LA High Volt (APU) <ul style="list-style-type: none"> MT 0401: L4Y U5Y MT 0994: MT 0421, 2565: A8Y A9Y B1Y B2Y B5YB6Y B7Y B8Y B9Y B3Y C1Y C2Y C3Y C7Y C8Y 	41R3177	1
Line Cord - Korea <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	41R3261	1
Line Cord - Taiwan <ul style="list-style-type: none"> MT 0401: BQV BSV C1V C2V CPV CQV H6V H7V H8V H9V L3V T7V T8V T9V V1V MT 0994: A1G A2G A3G A4G A5G A6G A7G A8G A9G B1G B2G C1G C2G C3G C4G C5G C6G MT 0421, 2565: 	41R3279	1

Power Cords --secondary	FRU #	CRU
Line Cord - South Africa <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG F1Q F2Q CUG CWG G6M G1A G2A H2A H3A H4A H5A J3G J1G J2G P6M N7A N8A R5G S5M S9A T1M T2M H6A P1A Q3A Q4A T3A U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Y5G Z3G Z4G Z8G Z9G MT 0994: MT 0421, 2565: 	41R3221	1
Line Cord - India <ul style="list-style-type: none"> MT 0401: A6Q BLQ BMQ BNQ BPQ F1Q F2Q J4Q J5Q J6Q J7Q J8Q J9Q K1Q K8Q K9Q L1Q L2Q L5Q L6Q L7Q L8Q L9Q M1Q M2Q M3Q M4Q M5Q M6Q M7Q M8Q M9Q N1Q N2Q N3Q N4Q N5Q N6Q P1Q Q2Q Q3Q Q4Q Q5Q Q6Q Q7Q Q8Q Q9Q R1Q R2Q R3Q R4Q S1Q S2Q S3Q S4Q H6Q MT 0994: A1G A2G A3G A4G A5G A6G A7G A8G A9G B1G B2G C1G C2G C3G C4G C5G C6G MT 0421, 2565: 	41R3175	1
Line Cord - Japanese and Japanese English <ul style="list-style-type: none"> MT 0401: AUJ AGJ AHJ AJJ AKJ ALJ ALJ AMJ ANJ F7J F8J F9J G3J G4J G5J G6J G7J G8J G9J H1J P8J P9J Q1J R9J W1J W2J W3J W4J W5J W6J W7J W8J W9J Y1J Y9J Z1J Z2J MT 0994: MT 0421, 2565: 	41R3249	1
Line Cord - ANZ <ul style="list-style-type: none"> MT 0401: A1M P6M S5M T1M T2M MT 0994: MT 0421, 2565: 	41R3197	1
Line Cord - Hong Kong <ul style="list-style-type: none"> MT 0401: B5B B6B B7B B8B CRB CSB H9B P7B N9B P1B P2B P3B P4B P5B N8B R8B S3B S6B S7B T5B U4H Y6B Y7B Y8B MT 0994: MT 0421, 2565: 	41R3225	1
Y cable for Brazil <ul style="list-style-type: none"> MT 0401: B1Y B2Y B3Y AAY ABY ACY C3Y L4Y MT 0994: A1G A2G A3G A4G A5G A6G A7G A8G A9G B1G B2G C1G C2G C3G C4G C5G C6G MT 0421, 2565: B4Y A4Y A5Y A1Y A2Y A3Y C4Y C7Y C8Y 	43N9044	1
Line Cord - Italy <ul style="list-style-type: none"> MT 0401: A2S A3S A5S B1S B2S B3S AAS ABS ACS L4S L4Y R5G R5S T6G U1S U2S U3S U5S U6S U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Y5G Z3G Z4G Z8G Z9G MT 0994: MT 0421, 2565: B4S A4S A5S A1S A2S A3S A6S A7S A8S A9S B1S B2S B5S B6S B7S B8S B9S B3S A8Y A9Y B1Y B2Y B5YB6Y B7Y B8Y B9Y B3Y C1S C1Y C2S C2Y C3S C3Y C4S C4Y C7S C7Y C8S C8Y 	41R3233	1

Power Cords --secondary	FRU #	CRU
Line Cord - Indonesia, Laos, Cambodia, and Vietnam A models <ul style="list-style-type: none"> MT 0401: MT 0994: A1G A2G A3G A4G A5G A6G A7G A8G A9G B1G B2G C1G C2G C3G C4G C5G C6G MT 0421, 2565: 	41R3209	1
Line Cord - Denmark <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG F1Q F2Q CUG CWG G6G J3G J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Y5G Z3G Z4G Z8G Z9G MT 0994: A1G A2G A3G A4G A5G A6G A7G A8G A9G B1G B2G C1G C2G C3G C4G C5G C6G MT 0421, 2565: 	41R3213	1
Line Cord - Switzerland <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG F1Q F2Q CUG CWG G6G J3G J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Y5G Z3G Z4G Z8G Z9G MT 0994: A1G A2G A3G A4G A5G A6G A7G A8G A9G B1G B2G C1G C2G C3G C4G C5G C6G MT 0421, 2565: 	41R3229	1
Line Cord - Israel <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG F1Q F2Q CUG CWG G6G J3G J1G J2G R5G T6G U7G U8G U9G V1G V6G V7G S6G V8G V9G Y2G Y3G Y4G Y5G Z3G Z4G Z8G Z9G MT 0994: MT 0421, 2565: 	41R3237	1
Line Cord - Austria, Belgium, Croatia, Czechoslovakia, Finland, France, Germany, Hungary, Netherlands, Norway, Poland, Portugal, Romania, Spain, Sweden <ul style="list-style-type: none"> MT 0401: BFA BGA BJA BKA G1A G2A H2A H3A H4A H5A N7A N8A S9A H6A P1A Q3A Q4A T3A MT 0994: MT 0421, 2565: 	41R3209	1
Line Cord - Thailand <ul style="list-style-type: none"> MT 0401: BFT BGT BJT BKT H6T P1T Q3T Q4T S9T T3T MT 0994: MT 0421, 2565: 	43N9030	1

Recovery discs

Windows 7 Home Basic 32 Recovery CD

Windows 7 Home Basic 32	FRU #	CRU
Spanish <ul style="list-style-type: none">• MT 0401: B1S B1Y B2S B2Y B3S B3Y AAS AAY C3S C3Y Y2G Y3G Y4G Y5G• MT 0994:• MT 0421, 2565: A3S A3Y	89Y7237	1
Russian <ul style="list-style-type: none">• MT 0401: Y2G Y3G Y4G Y5G• MT 0994:• MT 0421, 2565:	03T5957	1
Brazilian Portuguese <ul style="list-style-type: none">• MT 0401:• MT 0994:• MT 0421, 2565:	03T0105	1

Windows 7 Home Basic 32 SP1 Recovery CD

Windows 7 Home Basic 32 SP1	FRU #	CRU
Russian <ul style="list-style-type: none">• MT 0401: Y2G Y3G Y4G Y5G• MT 0994:• MT 0421, 2565:	03T2035	1
Spanish <ul style="list-style-type: none">• MT 0401: Y2G Y3G Y4G Y5G• MT 0994:• MT 0421, 2565:	03T2036	1
Brazilian Portuguese <ul style="list-style-type: none">• MT 0401:• MT 0994:• MT 0421, 2565:	03T2033	1
India English <ul style="list-style-type: none">• MT 0401:• MT 0994:• MT 0421, 2565:	03T2034	1
US English <ul style="list-style-type: none">• MT 0401:• MT 0994:• MT 0421, 2565:	03T2037	1

Windows 7 Home Premium 32 Recovery CD

Windows 7 Home Premium 32	FRU #	CRU
English <ul style="list-style-type: none"> MT 0401: A2U A6Q L5Q P6M N7A T1M MT 0994: MT 0421, 2565: D1U 	89Y7248	1
French <ul style="list-style-type: none"> MT 0401: A2F MT 0994: MT 0421, 2565: 	89Y7241	1
Spanish <ul style="list-style-type: none"> MT 0401: A2S MT 0994: MT 0421, 2565: 	89Y7246	1
Transitional Chinese <ul style="list-style-type: none"> MT 0401: B5B BQV H8V H9B H9V R8B S7B T7V T9V Y6B Y7B Y8B MT 0994: MT 0421, 2565: 	89Y7238	1
Czech <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	89Y7239	1
Polish <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	89Y6567	1
Turkish <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	89Y7247	1
Greek <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	89Y7242	1
Hebrew <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	89Y7243	1
India English <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	89Y7240	1

Windows 7 Home Premium 32	FRU #	CRU
Hong Kong <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	89Y7244	1
Japanese <ul style="list-style-type: none"> • MT 0401: Q1J • MT 0994: • MT 0421, 2565: 	89Y7245	1
C&L Nordics (EN DK FI NO SV) <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	89Y7249	1
C&L FIGS-NL (EN FR GR IT NL SP) <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	89Y7250	1

Windows 7 Home Premium 32 SP1 Recovery CD

Windows 7 Home Premium 32 SP1	FRU #	CRU
Traditional Chinese <ul style="list-style-type: none"> • MT 0401: B5B BQV H8V H9B H9V R8B S7B T7V T9V Y6B Y7B Y8B • MT 0994: • MT 0421, 2565: 	03T2038	1
Czech <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	03T2039	1
India English <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	03T2040	1
French <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	03T2041	1
Greek <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	03T2042	1

Windows 7 Home Premium 32 SP1	FRU #	CRU
Hebrew <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	03T2043	1
Hong Kong <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	03T2044	1
Japanese <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	03T2045	1
Portuguese <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	03T2046	1
Spanish <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	03T2047	1
Turkish <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	03T2048	1
US <ul style="list-style-type: none"> • MT 0401: A2U A6Q L5Q P6M N7A • MT 0994: • MT 0421, 2565: D1U 	03T2049	1
C&L Nordics (EN DK FI NO SV) <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	03T2050	1
C&L FIGS-NL (EN FR GR IT NL SP) <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	03T2051	1

Windows 7 Professional 32 Recovery CD

Windows 7 Professional 32	FRU #	CRU
US English <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG A2U A3U BFA BGA BJA BKA APU AQM ASG ADM A1M A7G A8G A9G C4G C5G C6G A6Q BLQ BMQ BNQ BPQ CNG F1Q F2Q CUG CWG G6G G6M H4A H5A J7Q K1Q L8Q L9Q M8Q N2Q P1Q N8A Q3Q Q5Q Q6Q R1Q S2Q S3Q S5M S9A T2M H6A H6Q P1A Q3A U7G U8G V1G V6G S6G Z3G Z4G MT 0994: A4G A5G A6G MT 0421, 2565: A6U C5U C6U 	89Y7210	1
French <ul style="list-style-type: none"> MT 0401: S6G Z3G Z4G MT 0994: A4G A5G A6G MT 0421, 2565: A6F C5F 	89Y7203	1
LA Spanish <ul style="list-style-type: none"> MT 0401: A3S B3S B3Y AAS AAY ABS ABY ACS ACY L4S L4D L4Y MT 0994: MT 0421, 2565: B4S B4Y A4S A4Y A5S A5Y A1S A1Y A2S A2Y C2S C2D C2Y C3S C3D C3Y C4S C4D C4Y C5S C8S C8D C8Y 	89Y7208	1
Traditional Chinese <ul style="list-style-type: none"> MT 0401: B7B C1V C2V CPV CQV K3B K5B K6B K7B H6V H7V L3V P7B N9B P1B P2B P3B P5B N8B S3B S6B T8V V1V MT 0994: MT 0421, 2565: 	89Y7200	1
Czech <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG ASG A7G A8G A9G C4G C5G C6G CNG F1Q F2Q CUG CWG G6G U7G U8G V1G V6G S6G Z3G Z4G MT 0994: A4G A5G A6G MT 0421, 2565: 	89Y7201	1
Polish <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG ASG A7G A8G A9G C4G C5G C6G CNG F1Q F2Q CUG CWG G6G U7G U8G V1G V6G S6G Z3G Z4G MT 0994: A4G A5G A6G MT 0421, 2565: 	03T5992	1
Portuguese <ul style="list-style-type: none"> MT 0401: MT 0994: A4G A5G A6G MT 0421, 2565: 	89Y6561	1
Russian <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG ASG A7G A8G A9G C4G C5G C6G CNG F1Q F2Q CUG CWG G6G U7G U8G V1G V6G S6G Z3G Z4G MT 0994: A4G A5G A6G MT 0421, 2565: 	89Y6562	1

Windows 7 Professional 32	FRU #	CRU
Turkish <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG ASG A7G A8G A9G C4G C5G C6G CNG F1Q F2Q CUG CWG G6G U7G U8G V1G V6G S6G Z3G Z4G MT 0994: A4G A5G A6G MT 0421, 2565: 	89Y7209	1
Hungarian <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG ASG A7G A8G A9G C4G C5G C6G CNG F1Q F2Q CUG CWG G6G U7G U8G V1G V6G S6G Z3G Z4G MT 0994: A4G A5G A6G MT 0421, 2565: 	03T5991	1
Greek <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG ASG A7G A8G A9G C4G C5G C6G CNG F1Q F2Q CUG CWG G6G U7G U8G V1G V6G S6G Z3G Z4G MT 0994: A4G A5G A6G MT 0421, 2565: 	89Y7204	1
Brazilian Portuguese <ul style="list-style-type: none"> MT 0401: B1P C5P F4P F5P F6P ZAP ZBP MT 0994: MT 0421, 2565: 	03T5990	1
Slovenian <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG ASG A7G A8G A9G C4G C5G C6G CNG F1Q F2Q CUG CWG G6G U7G U8G V1G V6G S6G Z3G Z4G MT 0994: MT 0421, 2565: 	03T5995	1
Romanian <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG ASG A7G A8G A9G C4G C5G C6G CNG F1Q F2Q CUG CWG G6G U7G U8G V1G V6G S6G Z3G Z4G MT 0994: A4G A5G A6G MT 0421, 2565: 	03T5993	1
Serbian-Latin <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG ASG A7G A8G A9G C4G C5G C6G CNG F1Q F2Q CUG CWG G6G U7G U8G V1G V6G S6G Z3G Z4G MT 0994: MT 0421, 2565: 	03T5996	1
Slovakian <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG ASG A7G A8G A9G C4G C5G C6G CNG F1Q F2Q CUG CWG G6G U7G U8G V1G V6G S6G Z3G Z4G MT 0994: A4G A5G A6G MT 0421, 2565: 	03T5994	1

Windows 7 Professional 32	FRU #	CRU
Arabic Localized <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG ASG A7G A8G A9G C4G C5G C6G CNG F1Q F2Q CUG CWG G6G U7G U8G V1G V6G S6G Z3G Z4G MT 0994: MT 0421, 2565: 	03T5989	1
Hebrew <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG ASG A7G A8G A9G C4G C5G C6G CNG F1Q F2Q CUG CWG G6G U7G U8G V1G V6G S6G Z3G Z4G MT 0994: A4G A5G A6G MT 0421, 2565: 	89Y7205	1
Japanese <ul style="list-style-type: none"> MT 0401: AUJ AGJ AHJ AJJ AKJ ALJ ALJ AMJ ANJ F7J F8J F9J G3J G4J G5J G6J G7J G8J G9J H1J P8J P9J R9J W1J W2J W3J W4J W5J W6J W7J W8J W9J Y1J Y9J Z1J Z2J MT 0994: MT 0421, 2565: 	89Y7207	1
India English <ul style="list-style-type: none"> MT 0401: BNQ BPQ S2Q MT 0994: MT 0421, 2565: 	89Y7202	1
Hong Kong <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	89Y7206	1
C&L Nordics (EN DK FI NO SV) <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG ASG A7G A8G A9G C4G C5G C6G CNG F1Q F2Q CUG CWG G6G U7G U8G V1G V6G S6G Z3G Z4G MT 0994: A4G A5G A6G MT 0421, 2565: 	89Y7211	1
C&L FIGS-NL (EN FR GR IT NL SP) <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG ASG A7G A8G A9G C4G C5G C6G CNG F1Q F2Q CUG CWG G6G U7G U8G V1G V6G S6G Z3G Z4G MT 0994: A4G A5G A6G MT 0421, 2565: 	89Y7212	1

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Windows 7 Professional 32 SP1	FRU #	CRU
Traditional Chinese <ul style="list-style-type: none"> MT 0401: B7B C1V C2V CPV CQV K3B K5B K6B K7B H6V H7V L3V P7B N9B P1B P2B P3B P5B S3B S6B T8V V1V MT 0994: MT 0421, 2565: 	03T2054	1
Czech <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG ASG A7G A8G A9G C4G C5G C6G CNG F1Q F2Q CUG CWG G6G U7G U8G V1G V6G MT 0994: MT 0421, 2565: 	03T2055	1
India English <ul style="list-style-type: none"> MT 0401: BNQ BPQ S2Q MT 0994: MT 0421, 2565: 	03T2056	1
French <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: C5F 	03T2057	1
Greek <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG ASG A7G A8G A9G C4G C5G C6G CNG F1Q F2Q CUG CWG G6G U7G U8G V1G V6G MT 0994: MT 0421, 2565: 	03T2058	1
Hebrew <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG ASG A7G A8G A9G C4G C5G C6G CNG F1Q F2Q CUG CWG G6G U7G U8G V1G V6G MT 0994: MT 0421, 2565: 	03T2059	1
Hong Kong <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	03T2060	1
Portuguese <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	03T2064	1
Russian <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG ASG A7G A8G A9G C4G C5G C6G CNG F1Q F2Q CUG CWG G6G U7G U8G V1G V6G MT 0994: MT 0421, 2565: 	03T2066	1

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Spanish <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	03T2069	1
Turkish <ul style="list-style-type: none"> • MT 0401: B9G BBG BCG BDG ASG A7G A8G A9G C4G C5G C6G CNG F1Q F2Q CUG CWG G6G U7G U8G V1G V6G • MT 0994: • MT 0421, 2565: 	03T2071	1
US <ul style="list-style-type: none"> • MT 0401: B9G BBG BCG BDG ASG A7G A8G A9G C4G C5G C6G CNG F1Q F2Q CUG CWG G6G U7G U8G V1G V6G • MT 0994: • MT 0421, 2565: C5U C6U 	03T2072	1
C&L Nordics (EN DK FI NO SV) <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	03T2073	1
C&L FIGS-NL (EN FR GR IT NL SP) <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	03T2074	1
Arabic <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	03T2052	1
Brazilian Portuguese <ul style="list-style-type: none"> • MT 0401: B1P C5P F4P F5P F6P • MT 0994: • MT 0421, 2565: 	03T2053	1
Hungarian <ul style="list-style-type: none"> • MT 0401: B9G BBG BCG BDG ASG A7G A8G A9G C4G C5G C6G CNG F1Q F2Q CUG CWG G6G U7G U8G V1G V6G • MT 0994: • MT 0421, 2565: 	03T2061	1
Japanese <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	03T2062	1

Windows 7 Professional 32 SP1	FRU #	CRU
Polish <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG ASG A7G A8G A9G C4G C5G C6G CNG F1Q F2Q CUG CWG G6G U7G U8G V1G V6G MT 0994: MT 0421, 2565: 	03T2063	1
Romanian <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG ASG A7G A8G A9G C4G C5G C6G CNG F1Q F2Q CUG CWG G6G U7G U8G V1G V6G MT 0994: MT 0421, 2565: 	03T2065	1
Slovakian <ul style="list-style-type: none"> MT 0401: B9G BBG BCG BDG ASG A7G A8G A9G C4G C5G C6G CNG F1Q F2Q CUG CWG G6G U7G U8G V1G V6G MT 0994: MT 0421, 2565: 	03T2067	1
Slovenian <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	03T2068	1
Serbian-Latin <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	03T2070	1

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Windows 7 Professional 64	FRU #	CRU
US English <ul style="list-style-type: none"> MT 0401: A5U CVG J3G R5G R6U R7U R5U U1U U2U U3U U6U MT 0994: A1G A2G A3G A7G A8G A9G B1G B2G C3G C4G C6G MT 0421, 2565: A7U C9U 	89Y7255	1
French <ul style="list-style-type: none"> MT 0401: A5F CVG J3G R5G R6F R7F R5F U1F U2F U3F U6F MT 0994: A1G A2G A3G A7G A8G A9G B1G B2G C3G C4G C6G MT 0421, 2565: A7F 	89Y7252	1
LA Spanish <ul style="list-style-type: none"> MT 0401: A5S R5S U1S U2S U3S U6S MT 0994: MT 0421, 2565: 	89Y7254	1

Windows 7 Professional 64	FRU #	CRU
Polish <ul style="list-style-type: none"> MT 0401: CVG J3G R5G MT 0994: A1G A2G A3G A7G A8G A9G B1G B2G C3G C4G C6G MT 0421, 2565: 	03T0110	1
Portuguese <ul style="list-style-type: none"> MT 0401: CVG J3G R5G MT 0994: A1G A2G A3G A7G A8G A9G B1G B2G C3G C4G C6G MT 0421, 2565: 	89Y6568	1
Hungarian <ul style="list-style-type: none"> MT 0401: CVG J3G R5G MT 0994: A1G A2G A3G A7G A8G A9G B1G B2G C3G C4G C6G MT 0421, 2565: 	03T0109	1
Brazilian Portuguese <ul style="list-style-type: none"> MT 0401: F3P V3P Z5P MT 0994: MT 0421, 2565: 	03T0108	1
Slovenian <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	03T0113	1
Romanian <ul style="list-style-type: none"> MT 0401: CVG J3G R5G MT 0994: A1G A2G A3G A7G A8G A9G B1G B2G C3G C4G C6G MT 0421, 2565: 	03T0111	1
Sebian-Latin <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	03T0114	1
Slovakian <ul style="list-style-type: none"> MT 0401: CVG J3G R5G MT 0994: A1G A2G A3G A7G A8G A9G B1G B2G C3G C4G C6G MT 0421, 2565: 	03T0112	1
Arabic Localized <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	03T0107	1
Hebrew <ul style="list-style-type: none"> MT 0401: CVG J3G R5G MT 0994: A1G A2G A3G A7G A8G A9G B1G B2G C3G C4G C6G MT 0421, 2565: 	89Y7272	1

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Hong Kong <ul style="list-style-type: none"> MT 0401: B6B B8B P4B T5B MT 0994: MT 0421, 2565: 	03T5960	1
India English <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	89Y7251	1
Japanese <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	89Y7253	1
C&L Nordics (EN DK FI NO SV) <ul style="list-style-type: none"> MT 0401: CVG J3G R5G MT 0994: A1G A2G A3G A7G A8G A9G B1G B2G C3G C4G C6G MT 0421, 2565: 	89Y7256	1
C&L FIGS-NL (EN FR GR IT NL SP) <ul style="list-style-type: none"> MT 0401: CVG J3G R5G MT 0994: A1G A2G A3G A7G A8G A9G B1G B2G C3G C4G C6G MT 0421, 2565: 	89Y7257	1
Chinese Traditional <ul style="list-style-type: none"> MT 0401: K2B K4B MT 0994: MT 0421, 2565: 	03T5959	1
Czech <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	03T0481	1
Greek <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	03T0482	1
Turkish <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	03T0483	1

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Traditional Chinese <ul style="list-style-type: none"> MT 0401: K2B K4B MT 0994: MT 0421, 2565: 	03T2079	1
India English <ul style="list-style-type: none"> MT 0401: MT 0994: A1G A2G A3G A7G A8G A9G B1G B2G MT 0421, 2565: 	03T2081	1
French <ul style="list-style-type: none"> MT 0401: A5F CVG J3G R5G R6F R7F R5F U1F U2F U3F U6F MT 0994: A1G A2G A3G A7G A8G A9G B1G B2G MT 0421, 2565: 	03T2082	1
Hebrew <ul style="list-style-type: none"> MT 0401: CVG J3G R5G MT 0994: A1G A2G A3G A7G A8G A9G B1G B2G MT 0421, 2565: 	03T2084	1
Hong Kong <ul style="list-style-type: none"> MT 0401: B6B B8B P4B T5B MT 0994: MT 0421, 2565: 	03T2085	1
Portuguese <ul style="list-style-type: none"> MT 0401: CVG J3G R5G MT 0994: MT 0421, 2565: 	03T2089	1
Spanish <ul style="list-style-type: none"> MT 0401: MT 0994: A1G A2G A3G A7G A8G A9G B1G B2G MT 0421, 2565: 	03T2093	1
US <ul style="list-style-type: none"> MT 0401: A5U CVG J3G R5G R6U R7U R5U U1U U2U U3U U6U MT 0994: A1G A2G A3G A7G A8G A9G B1G B2G MT 0421, 2565: C9U 	03T2096	1
C&L Nordics (EN DK FI NO SV) <ul style="list-style-type: none"> MT 0401: CVG J3G R5G MT 0994: A1G A2G A3G A7G A8G A9G B1G B2G MT 0421, 2565: 	03T2097	1
C&L FIGS-NL (EN FR GR IT NL SP) <ul style="list-style-type: none"> MT 0401: CVG J3G R5G MT 0994: A1G A2G A3G A7G A8G A9G B1G B2G MT 0421, 2565: 	03T2098	1

Windows 7 Professional 64 SP1	FRU #	CRU
Arabic <ul style="list-style-type: none"> MT 0401: MT 0994: A1G A2G A3G A7G A8G A9G B1G B2G MT 0421, 2565: 	03T2077	1
Brazilian Portuguese <ul style="list-style-type: none"> MT 0401: F3P Z5P MT 0994: MT 0421, 2565: 	03T2078	1
Hungarian <ul style="list-style-type: none"> MT 0401: CVG J3G R5G MT 0994: A1G A2G A3G A7G A8G A9G B1G B2G MT 0421, 2565: 	03T2086	1
Polish <ul style="list-style-type: none"> MT 0401: CVG J3G R5G MT 0994: A1G A2G A3G A7G A8G A9G B1G B2G MT 0421, 2565: 	03T2088	1
Romanian <ul style="list-style-type: none"> MT 0401: CVG J3G R5G MT 0994: A1G A2G A3G A7G A8G A9G B1G B2G MT 0421, 2565: 	03T2090	1
Slovakian <ul style="list-style-type: none"> MT 0401: CVG J3G R5G MT 0994: A1G A2G A3G A7G A8G A9G B1G B2G MT 0421, 2565: 	03T2091	1
Slovenian <ul style="list-style-type: none"> MT 0401: MT 0994: A1G A2G A3G A7G A8G A9G B1G B2G MT 0421, 2565: 	03T2092	1
Serbian-Latin <ul style="list-style-type: none"> MT 0401: MT 0994: A1G A2G A3G A7G A8G A9G B1G B2G MT 0421, 2565: 	03T2094	1
Czech <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	03T2080	1
Greek <ul style="list-style-type: none"> MT 0401: MT 0994: MT 0421, 2565: 	03T2083	1

Windows 7 Professional 64 SP1	FRU #	CRU
Turkish <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	03T2095	1
Japanese <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	03T2087	1

Windows XP Professional 32 Recovery CD

Note: The Windows XP Professional recovery DVDs are available only for models with a valid Microsoft Windows XP Professional certificate of authenticity (COA) affixed to the system. Due to a Microsoft licensing limitation, if a model came with Windows XP Professional preinstalled from the factory, but has either a Windows 7 or Windows Vista COA affixed to the system, that model is eligible only for recovery DVDs that match the operating system specified on the COA.

Windows XP Professional 32	FRU #	CRU
French <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	89Y7185	1
Hebrew <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	89Y7186	1
Japanese <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	89Y7187	1
Russian <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	89Y6558	1
Spanish <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	89Y7188	1
US English <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	89Y7189	1

Windows XP Professional 32	FRU #	CRU
Traditional Chinese <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	03T5956	1
Hong Kong <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	03T5987	1

Windows 7 Ultimate 32 Recovery CD

Windows 7 Ultimate 32	FRU #	CRU
US English <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	03T2076	1
Traditional Chinese <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 0421, 2565: 	03T2075	1

Windows 7 Ultimate Starter 32 Recovery CD

Windows 7 Ultimate Starter 32	FRU #	CRU
US English <ul style="list-style-type: none"> • MT 0401: • MT 0994: • MT 2565, 0421: 	03T0691	

Chapter 10. Additional Service Information

This chapter provides additional information that the service representative might find helpful.

Security features

Security features in this section include the following:

- Passwords
- Vital Product Data
- Management Information Format (MIF)

Hardware controlled Passwords

Hardware controlled passwords are set using the Setup Utility program. For more information about passwords, see “Using passwords” on page 37.

Operating system password

An operating system password is very similar to a power-on password and denies access to the computer by an unauthorized user when the password is activated. The computer is unusable until the password is entered and recognized by the computer.

Vital product data

Each computer has a unique Vital Product Data (VPD) code stored in the nonvolatile memory on the system board. After you replace the system board, the VPD must be updated. To update the VPD, see “Flash update procedures” on page 179.

BIOS levels

An incorrect level of BIOS can cause false errors and unnecessary FRU replacement. Use the following information to determine the current level of BIOS installed in the computer, the latest BIOS available for the computer, and where to obtain the latest level of BIOS.

- To determine the current Level of BIOS:
 - Start the Setup Utility.
 - Select Standard CMOS Features.
- Sources for obtaining the latest level BIOS available
 1. Lenovo support web site: <http://www.lenovo.com/support/>
 2. Lenovo Customer Support Center
 3. Levels 1 and 2 Support

To update (flash) the BIOS, see “Flash update procedures” on page 179.

Flash update procedures

This section details how to flash (update) the BIOS.

Updating (flashing) BIOS from a disc

This section provides instructions on how to update (flash) BIOS from a disc. System program updates are available at:

<http://www.lenovo.com/support>

To update (flash) BIOS from a disc, do the following:

1. Make sure the optical drive you want to use is set as the first boot device in the startup device sequence. See "Selecting or changing the startup device sequence" on page 39.
2. Make sure the computer is turned on and insert the disc into the optical drive. The update begins.

Note: You can insert the disc into the optical drive when you are setting the startup device sequence. However, if you insert the disc into the optical drive when you have already entered the operating system, you need to restart the computer to begin the update process.

3. When prompted to change the serial number, press N. If you want to change the serial number, press Y when prompted, type in the serial number and press Enter.
4. When prompted to change the machine type/model, press N. If you want to change the machine type/model, press Y when prompted, type in the machine type/model and press Enter.
5. Follow the instructions on the screen to complete the update.

Updating (flashing) BIOS from your operating system

Note: Because Lenovo makes constant improvements to the Web site, the Web page contents are subject to change without notice, including the contents referenced in the following procedure.

To update (flash) BIOS from your operating system:

1. Go to <http://www.lenovo.com/support>.
2. Do the following to locate the downloadable files for your machine type:
 - a. In the **Enter a product number** field, type your machine type and click **Go**.
 - b. Click **Downloads and drivers**.
 - c. Select **BIOS** in the **Refine results** field to easily locate all the BIOS related links.
 - d. Click the BIOS update link.
 - e. Click the TXT file that contains the instructions for updating (flashing) BIOS from your operating system.
3. Print these instructions. This is very important because they are not on the screen after the download begins.
4. Follow the printed instructions to download, extract, and install the update.

Recovering from a POST/BIOS update failure

Attention: If an interruption occurs during a POST/BIOS update (flash update), the computer might not restart correctly. If this occurs, perform the following procedure (also known as a Boot-block recovery).

Note: If your computer has no internal diskette drive, an optional USB diskette drive must be connected to use the BIOS flash diskette.

1. Turn the computer off and insert the BIOS flash diskette in the diskette drive.
2. Turn the computer on and immediately during startup, press Ctrl and Home keys (Ctrl + Home) at the same time.

3. The computer will automatically begin recovering the BIOS. During this time, you will see a screen indicating that Flash recovery has started. After the update session completes, the computer automatically reboots.
4. Remove the BIOS flash diskette from the diskette drive.

Power management

Power management reduces the power consumption of certain components of the computer such as the system power supply, processor, hard disk drives, and some monitors.

Automatic configuration and power interface (ACPI) BIOS

Being an ACPI BIOS system, the operating system is allowed to control the power management features of the computer and the setting for Advanced Power Management (APM) BIOS mode is ignored. Not all operating systems support ACPI BIOS mode.

Automatic Power-On features

The Automatic Power-On features within the Power Management menu allow you to enable and disable features that turn on the computer automatically.

- **Serial Port A Ring Detect:** With this feature set to **Enabled** and an external modem connected to serial port (COM1), the computer will turn on automatically when a ring is detected on the modem.
- **PCI Modem Ring Detect:** With this feature set to **Enabled**, the computer will turn on automatically when a ring is detected on the internal modem.
- **PCI Wake Up:** This feature allows PCI cards that support this capability to wake the system.
- **Wake Up on Alarm:** You can specify a date and time at which the computer will be turned on automatically. This can be either a single event or a daily event.
- **Wake on LAN:** If the computer has a properly configured token-ring or Ethernet LAN adapter card that is Wake on LAN-enabled and there is remote network management software, you can use the Wake on LAN feature. When you set Wake on LAN to **Enabled**, the computer will turn on when it receives a specific signal from another computer on the local area network (LAN).

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Television output notice

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